



A-378CIP2C3.ST25.txt
SEQUENCE LISTING

RECEIVED

DEC 26 2002

TECH CENTER 1600/2900

<110> Boyle, William J.
Lacey, David L.
Calzone, Frank J.
Chang, Ming-shi

<120> Osteoprotegerin

<130> A-378CIP2C3

<140> 09/718,725

<141> 2000-11-22

<150> 09/132,985

<151> 1998-08-12

<150> 08/577,788

<151> 1995-12-22

<160> 179

<170> PatentIn version 3.1

<210> 1

<211> 36

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic oligonucleotide

<220>

<221> misc_feature

<222> (28)..(35)

A-378CIP2C3.ST25.txt
<223> n could be any one of A, G, C or T

<400> 1
aaaggaagga aaaaagcggc cgctacannn nnnnnt

36

<210> 2

<211> 16

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic oligonucleotide

<400> 2
tcgacccacg cgtccg

16

<210> 3

<211> 12

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic oligonucleotide

<400> 3
gggtgcgag gc

12

<210> 4

<211> 18

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic oligonucleotide

<400> 4
tgtaaaacga cggccagt

18

<210> 5

<211> 18

<212> DNA

B8
Cont

<213> Artificial sequence

<220>

<223> Synthetic oligonucleotide

<400> 5
caggaaacag ctatgacc

18

<210> 6

<211> 20

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic oligonucleotide

<400> 6
caattaaccc tcactaaagg

20

<210> 7

<211> 23

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic oligonucleotide

<400> 7
gcattatgac ccagaaaccg gac

23

<210> 8

<211> 23

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic oligonucleotide

<400> 8
aggtagcgcc cttcctcaca ttc

23

<210> 9

<211> 30

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic oligonucleotide

<400> 9

gactagtccc acaatgaaca agtggctgtg

30

<210> 10

<211> 45

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic oligonucleotide

<400> 10

ataagaatgc ggccgctaaa ctatgaaaca gcccgatgac cattc

45

<210> 11

<211> 21

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic oligonucleotide

<400> 11

gcctctagaa agagctggga c

21

<210> 12

<211> 21

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic oligonucleotide

<400> 12

cgccgtgttc catttatgag c

21

B8
Cont

<210> 13

<211> 24

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic oligonucleotide

<400> 13

atcaaaggca gggcatactt cctg

24

<210> 14

<211> 24

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic oligonucleotide

<400> 14

gttgactcc tgtttcacgg tctg

24

<210> 15

<211> 24

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic oligonucleotide

<400> 15

caagacacct tgaagggcct gatg

24

<210> 16

<211> 24

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic oligonucleotide
<400> 16
taacttttac agaagagcat cagc 24

<210> 17
<211> 33
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic oligonucleotide
<400> 17
agcgcggccg catgaacaag tggctgtgct gcg 33

<210> 18
<211> 31
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic oligonucleotide
<400> 18
agctctagag aaacagccca gtgaccattc c 31

<210> 19
<211> 24
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic oligonucleotide
<400> 19
gtgaagctgt gcaagaacct gatg 24

<210> 20
<211> 24
<212> DNA
<213> Artificial sequence

<220>

<223> Synthetic oligonucleotide

<400> 20

atcaaaggca gggcatactt cctg

24

<210> 21

<211> 24

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic oligonucleotide

<400> 21

cagatcctga agctgctcag ttg

24

<210> 22

<211> 33

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic oligonucleotide

<400> 22

agcgcggccg cggggaccac aatgaacaag ttg

33

<210> 23

<211> 33

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic oligonucleotide

<400> 23

agctctagaa ttgtgaggaa acagctcaat ggc

33

<210> 24

<211> 39

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic oligonucleotide

<400> 24
atagcggccg ctgagcccaa atcttgtgac aaaactcac

39

<210> 25

<211> 45

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic oligonucleotide

<400> 25
tctagagtcg acttatcatt tacccggaga cagggagagg ctctt

45

<210> 26

<211> 38

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic oligonucleotide

<400> 26
cctctgagct caagcttccg aggaccacaa tgaacaag

38

<210> 27

<211> 43

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic oligonucleotide

<400> 27
cctctgcggc cgctaagcag cttattttca cggattgaac ctg

43

<210> 28

<211> 38

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic oligonucleotide

<400> 28

cctctgagct caagcttccg aggaccacaa tgaacaag

38

<210> 29

<211> 24

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic oligonucleotide

<400> 29

tccgtaagaa acagcccagt gacc

24

<210> 30

<211> 31

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic oligonucleotide

<400> 30

cctctgcggc cgctgttgca tttcctttct g

31

<210> 31

<211> 19

<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic

<400> 31

Glu Thr Leu Pro Pro Lys Tyr Leu His Tyr Asp Pro Glu Thr Gly His
 1 5 10 15

Gln Leu Leu

<210> 32

<211> 21

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic oligonucleotide

<400> 32

tcccttgccc tgaccactct t

21

<210> 33

<211> 34

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic oligonucleotide

<400> 33

cctctgcggc cgcacacacg ttgtcatgtg ttgc

34

<210> 34

<211> 21

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic oligonucleotide

<400> 34

tcccttgccc tgaccactct t

21

<210> 35

<211> 34

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic oligonucleotide

<400> 35

cctctgcggc cgccttttgc gtggcttctc tggt

34

<210> 36

<211> 37

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic oligonucleotide

<400> 36

cctctgagct caagcttggt ttccggggac cacaatg

37

<210> 37

<211> 38

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic oligonucleotide

<400> 37

cctctgcggc cgctaagcag cttattttta ctgaatgg

38

<210> 38

<211> 37

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic oligonucleotide

<400> 38

cctctgagct caagcttggt ttccggggac cacaatg

37

<210> 39

<211> 33

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic oligonucleotide

<400> 39

cctctgcggc cgccagggtg acatctattc cac

33

<210> 40

<211> 35

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic oligonucleotide

<400> 40

ccgaagcttc caccatgaac aagtggctgt gctgc

35

<210> 41

<211> 40

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic oligonucleotide

<400> 41

cctctgtcga ctattataag cagcttattt tcacggattg

40

<210> 42

<211> 21

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic oligonucleotide

<400> 42
tcccttgccc tgaccactct t 21

<210> 43
<211> 35
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic oligonucleotide

<400> 43
cctctgtcga cttaacacac gttgtcatgt gttgc 35

<210> 44
<211> 21
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic oligonucleotide

<400> 44
tcccttgccc tgaccactct t 21

<210> 45
<211> 35
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic oligonucleotide

<400> 45
cctctgtcga cttacttttg cgtggcttct ctggt 35

<210> 46
<211> 1537
<212> DNA
<213> Escherichia coli

<400> 46
 gtgaagagcg tgaagagcgg ttcctccttt cagcaaaaaa cccctcaaga cccgtttaga 60
 ggccccaagg ggttatgcta gttattgctc agcggtgcca gcagccaact cagcttcctt 120
 tcgggctttc ttcttcttct tcttctttcc gcggatcctc gagtaagctt ccatgggtacc 180
 ctgcaggctc acactagtga gctcgaattc caacgcgta accatatgtt attcctcctt 240
 taattagtta aaacaaatct agaatcaa atcgattaatcg actataacaa accattttct 300
 tgcgtaaacc tgtacgatcc tacagggtact tatgttaa aattgtattt caagcgatat 360
 aatagtgtga caaaaatcca atttattaga atcaaatgtc aatctattac cgttttaatg 420
 atatataaca cgcaaaactt gcgacaaaca ataggtaagg ataaagagat gggatgaaa 480
 gacataaatg ccgacgacac ttacagaata attaataaaa ttaaagcctg tagaagcaat 540
 aatgatatta atcaatgctt atctgatatg actaaaatgg tacattgtga atattattta 600
 ctcgcgatca ttatcctca ttctatgggt aaatctgata tttcaattct ggataattac 660
 cctaaaaaat ggaggcaata ttatgatgac gctaatttaa taaaatatga tcctatagta 720
 gattattcta actccaatca ttcaccgatt aattggaata tatttgaaaa caatgctgta 780
 aataaaaaat ctccaaatgt aattaaagaa gcgaaatcat caggctcttat cactgggttt 840
 agtttcccta ttcatactgc taataatggc ttcggaatgc ttagttttgc acattcagag 900
 aaagacaact atatatagatg tttattttta catgcgtgta tgaacatacc attaatgtt 960
 ccttctctag ttgataatta tcgaaaaata aatatagcaa ataataaatc aaacaacgat 1020
 ttaacaaaaa gagaaaaaga atgttttagcg tgggcatgag aaggaaaaag ctcttgggat 1080
 atttcaaaaa tattaggctg tagtaagcgc acggtcactt tccatttaac caatgcgcaa 1140
 atgaaactca atacaacaaa ccgctgccaa agtattttcta aagcaatttt aacaggagca 1200
 attgattgcc catactttta aagttaagta cgacgtccat atttgaatgt atttagaaaa 1260
 ataaacaaaa gagttttag aaacgcaaaa aggccatccg tcaggatggc cttctgctta 1320
 atttgatgcc tggcagttta tggcgggctt cctgcccgcc accctccggg ccgttgcttc 1380
 gcaacgttca aatccgctcc cggcggattt gtcctactca ggagagcgtt caccgacaaa 1440
 caacagataa aacgaaaggc ccagtctttc gactgagcct ttcgttttat ttgatgcctg 1500
 gcagttccct actctcgcat ggggagacca tgcatac 1537

<210> 47

<211> 48

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic oligonucleotide

<400> 47

ccggcggaca tttatcacac agcagctgat gagaagtttc ttcattcca

48

<210> 48

<211> 55

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic oligonucleotide

<400> 48

cgatttgatt ctagaaggag gaataacata tggtaaagc gttggaattc ggtac

55

<210> 49

<211> 49

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic oligonucleotide

<400> 49

cgaattccaa cgcgttaacc atatgttatt cctccttcta gaatcaaat

49

<210> 50

<211> 1546

<212> DNA

<213> Escherichia coli

<400> 50

gcgtaacgta tgcattggtc ccccatgcga gagtagggaa ctgccaggca tcaaataaaa 60

cgaaaggctc agtcgaaaga ctgggccttt cgttttatct gttgtttgtc ggtgaacgct 120

ctcctgagta ggacaaatcc gccgggagcg gatttgaacg ttgcgaagca acggcccgga 180

gggtggcggg caggacgcc gccataaact gccaggcatc aaattaagca gaaggccatc 240

ctgacggatg gcctttttgc gtttctacaa actcttttgt ttatttttct aaatacatc 300

aaatatggac gtcgtactta acttttaaag tatgggcaat caattgctcc tgttaaaatt 360

gctttagaaa tactttggca gcggtttgtt gtattgagtt tcatttgccg atttggttaa 420

tggaagtgaa ccgtgcgctt actacagcct aatatttttg aaatatccca agagcttttt 480

ccttcgcatg cccacgctaa acattctttt tctcttttgg ttaaatcggt gtttgattta 540

A-378CIP2C3.ST25.txt

ttatttgcta tatttatttt tcgataatta tcaactagag aaggaacaat taatggtatg	600
ttcatacacg catgtaaaaa taaactatct atatagttgt ctttctctga atgtgcaaaa	660
ctaagcattc cgaagccatt attagcagta tgaatagga aactaaacc agtgataaga	720
cctgatgatt tcgcttcttt aattacattt ggagattttt tatttacagc attgttttca	780
aatatattcc aattaatcgg tgaatgattg gagttagaat aatctactat aggatcatat	840
tttattaaat tagcgtcatc ataattattgc ctccattttt tagggtaatt atccagaatt	900
gaaatatcag atttaaccat agaattgagga taaatgatcg cgagtaaata atattcacia	960
tgtaccattt tagtcatatc agataagcat tgattaatat cattattgct tctacaggct	1020
ttaattttat taattattct gtaagtgtcg tcggcattta tgtctttcat acccatctct	1080
ttatccttac ctattgtttg tcgcaagttt tgcgtgttat atattcattaa aacggtaata	1140
gattgacatt tgattctaataaattggatt ttgtgcacac tattatatcg cttgaaatac	1200
aattgtttta cataagtacc tgtaggatcg tacaggttta cgcaagaaaa tggtttgta	1260
tagtcgatta atcgatttga ttctagattt gttttaacta attaaaggag gaataacata	1320
tggttaacgc gttggaattc gagctcacta gtgtcgacct gcagggtacc atggaagctt	1380
actcgaggat ccgcggaaag aagaagaaga agaagaaagc ccgaaaggaa gctgagttgg	1440
ctgctgccac cgctgagcaa taactagcat aacccttgg ggcctctaaa cgggtcttga	1500
ggggtttttt gctgaaagga ggaaccgctc ttcacgctct tcacgc	1546

<210> 51

<211> 47

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic oligonucleotide

<400> 51

tatgaaacat catcaccatc accatcatgc tagcgtaaac gcgttgg	47
---	----

<210> 52

<211> 49

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic oligonucleotide

<400> 52
aattccaacg cgtaacgct agcatgatgg tgatggtgat gatgtttca 49

<210> 53
<211> 141
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic oligonucleotide

<400> 53
ctaattccgc tctcacctac caaacaatgc cccctgcaa aaaataaatt catataaaaa 60
acatacagat aaccatctgc ggtgataaat tatctctggc ggtgttgaca taaataccac 120
tggcggatgat actgagcaca t 141

<210> 54
<211> 147
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic oligonucleotide

<400> 54
cgatgtgctc agtatcaccg ccagtggat ttatgtcaac accgccagag ataatttacc 60
accgcagatg gttatctgta tggtttttat atgaatttat tttttgcagg ggggcattgt 120
ttggtaggtg agagcggaat tagacgt 147

<210> 55
<211> 55
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic oligonucleotide

<400> 55
cgatttgatt ctagaaggag gaataacata tggtaacgc gttggaattc ggtac 55

<210> 56

<211> 49

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic oligonucleotide

<400> 56

cgaattccaa cgcgttaacc atatgttatt cctccttcta gaatcaaat

49

<210> 57

<211> 668

<212> DNA

<213> Escherichia coli

<400> 57

gtgaagagcg tgaagagcgg ttcctccttt cagcaaaaaa cccctcaaga cccgtttaga	60
ggccccaagg ggttatgcta gttattgctc agcgggtggca gcagccaact cagcttcctt	120
tcgggctttc ttcttcttct tcttctttcc gcggatcctc gagtaagctt ccatggtacc	180
ctgcaggtcg acactagtga gctcgaattc caacgcgtta accatatggt attcctcctt	240
taattagtta actcaaatct agaatcaaat cgataaattg tgagcgctca caattgagaa	300
tattaatcaa gaatttttagc atttgtcaaa tgaatttttt aaaaattatg agacgtccat	360
atttgaatgt atttagaaaa ataaacaaaa gagttttagt aaacgcaaaa aggccatccg	420
tcaggatggc cttctgctta atttgatgcc tggcagttta tggcgggctt cctgcccgcc	480
accctccggg ccgttgcttc gcaacgttca aatccgctcc cggcggattt gtcctactca	540
ggagagcgtt caccgacaaa caacagataa aacgaaaggc ccagtctttc gactgagcct	600
ttcgttttat ttgatgcctg gcagttccct actctcgcat ggggagacca tgcatacggt	660
acgcacgt	668

<210> 58

<211> 726

<212> DNA

<213> Escherichia coli

<400> 58

gcgtaacgta tgcattgtct ccccatgcga gagtagggaa ctgccaggca tcaaataaaa	60
cgaaaggctc agtcgaaaga ctgggccttt cgttttatct gttgtttgtc ggtgaacgct	120
ctcctgagta ggacaaatcc gccgggagcg gatttgaacg ttgcgaagca acggccccga	180

A-378CIP2C3.ST25.txt

gggtggcggg caggacgccc gccataaact gccaggcatc aaattaagca gaaggggcct	240
cccaccgccc gtcctgcggg cggatatttga cgggccgtag ttttaattcgt cttcgccatc	300
ctgacggatg gcctttttgc gtttctacaa actcttttgc ttatttttct aaatacattc	360
aaatatggac gtctcataat ttttaaaaaa ttcatttgac aaatgctaaa attcttgatt	420
aatattctca attgtgagcg ctcacaattt atcgatttga ttctagattt gttttaacta	480
attaaaggag gaataacata tggttaacgc gttggaattc gagctcacta gtgtcgacct	540
gcagggtagc atggaagctt actcgaggat ccgcggaaag aagaagaaga agaagaaagc	600
ccgaaaggaa gctgagttgg ctgctgccac cgctgagcaa taactagcat aacccttgg	660
ggcctctaaa cgggtcttga ggggtttttt gctgaaagga ggaaccgctc ttcacgctct	720
tcacgc	726

<210> 59

<211> 44

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic oligonucleotide

<400> 59

tacgcactgg atccttataa gcagcttatt tttactgatt ggac	44
--	----

<210> 60

<211> 27

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic oligonucleotide

<400> 60

gtcctcctgg tacctaccta aaacaac	27
-------------------------------	----

<210> 61

<211> 102

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic oligonucleotide

<400> 61

tatggatgaa gaaacttctc atcagctgct gtgtgataaa tgtccgccgg gtacccggcg	60
gacatttatc acacagcagc tgatgagaag tttcttcac ca	102

<210> 62

<211> 19

<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic

<400> 62

Met Asp Glu Glu Thr Ser His Gln Leu Leu Cys Asp Lys Cys Pro Pro	
1 5 10 15	

Gly Thr Tyr

<210> 63

<211> 84

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic oligonucleotide

<400> 63

tatggaaact tttcctccaa aatatcttca ttatgatgaa gaaacttctc atcagctgct	60
gtgtgataaa tgtccgccgg gtac	84

<210> 64

<211> 78

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic oligonucleotide

<400> 64
 ccggcggaca tttatcacac agcagctgat gagaagtttc ttcatacataa tgaagatatt 60
 ttggaggaaa agtttcca 78

<210> 65

<211> 44

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic oligonucleotide

<400> 65
 tacgactgg atccttataa gcagcttatt ttcacggatt gaac 44

<210> 66

<211> 38

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic oligonucleotide

<400> 66
 gtgctcctgg tacctaccta aaacagcact gcacagtg 38

<210> 67

<211> 84

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic oligonucleotide

<400> 67
 tatggaaact ctgcctccaa aatacctgca ttacgatccg gaaactggc atcagctgct 60
 gtgtgataaa tgtgctccgg gtac 84

<210> 68

<211> 78

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic oligonucleotide

<400> 68

ccggagcaca tttatcacac agcagctgat gaccagtttc cggatcgtaa tgcaggtatt 60
ttggaggcag agtttcca 78

<210> 69

<211> 54

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic oligonucleotide

<400> 69

tatggacca gaaactggtc atcagctgct gtgtgataaa tgtgctccgg gtac 54

<210> 70

<211> 48

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic oligonucleotide

<400> 70

ccggagcaca tttatcacac agcagctgat gaccagtttc tgggtcca 48

<210> 71

<211> 87

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic oligonucleotide

<400> 71

tatgaaagaa actctgcctc caaaatacct gcattacgat ccggaaactg gtcacagct 60
gctgtgtgat aaatgtgctc cgggtac 87

<210> 72

<211> 81

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic oligonucleotide

<400> 72

ccggagcaca tttatcacac agcagctgat gaccagtttc cggatcgtaa tgcaggtatt 60
ttggaggcag agtttctttc a 81

<210> 73

<211> 71

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic oligonucleotide

<400> 73

gttctcctca tatgaaacat catcaccatc accatcatga aactctgcct ccaaaatacc 60
tgcattacga t 71

<210> 74

<211> 43

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic oligonucleotide

<400> 74

gttctcctca tatgaaagaa actctgcctc caaaatacct gca 43

<210> 75

<211> 76

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic oligonucleotide

<400> 75

tacgcactgg atccttaatg atggtgatgg tgatgatgta agcagcttat tttcacggat 60
tgaacctgat tcccta 76

<210> 76

<211> 47

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic oligonucleotide

<400> 76

gttctcctca tatgaaatac ctgcattacg atccggaaac tggatcat 47

<210> 77

<211> 43

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic oligonucleotide

<400> 77

gttctcctat taatgaaata tcttcattat gatgaagaaa ctt 43

<210> 78

<211> 40

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic oligonucleotide

<400> 78

tacgcactgg atccttataa gcagcttatt tttactgatt 40

<210> 79

<211> 40

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic oligonucleotide

<400> 79

gttctcctca tatggaaact ctgcctccaa aatacctgca

40

<210> 80

<211> 43

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic oligonucleotide

<400> 80

tacgcactgg atccttatgt tgcatttcct ttctgaatta gca

43

<210> 81

<211> 18

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic oligonucleotide

<400> 81

ccggaacag ataatgag

18

<210> 82

<211> 18

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic oligonucleotide

<400> 82

gacctcatt atctgttt

18

<210> 83

<211> 30

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic oligonucleotide

<400> 83

ccggaaacag agaagccacg caaaagtaag

30

<210> 84

<211> 30

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic oligonucleotide

<400> 84

gacccctact ttgctggc ttctctgtt

30

<210> 85

<211> 12

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic oligonucleotide

<400> 85

tatgttaatg ag

12

<210> 86

<211> 14

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic oligonucleotide
<400> 86
gacccctcatt aaca 14

<210> 87
<211> 21
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic oligonucleotide
<400> 87
tatgttccgg aaacagttaa g 21

<210> 88
<211> 23
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic oligonucleotide
<400> 88
gaccccttaac tggttccgga aca 23

<210> 89
<211> 36
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic oligonucleotide
<400> 89
tatgttccgg aaacagtgaa tcaactcaaa aataag 36

<210> 90
<211> 38
<212> DNA
<213> Artificial sequence

<220>
 <223> Synthetic oligonucleotide
 <400> 90
 gatccttatt ttgagttga ttcactgttt ccggaaca 38
 <210> 91
 <211> 100
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Synthetic oligonucleotide
 <400> 91
 ctagcgacga cgacgacaaa gaaactctgc ctccaaaata cctgcattac gatccggaaa 60
 ctggtcatca gctgctgtgt gataaatgtg ctccgggtac 100
 <210> 92
 <211> 92
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Synthetic oligonucleotide
 <400> 92
 ccggagcaca ttatcacac agcagctgat gaccagtttc cggatcgtaa tgcaggtatt 60
 ttggaggcag agtttctttg tcgtcgtcgt cg 92
 <210> 93
 <211> 26
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Synthetic oligonucleotide
 <400> 93
 acaaacacaa tcgatttgat actaga 26

<210> 94

<211> 50

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic oligonucleotide

<400> 94

tttgttttaa ctaattaaag gaggaataaa atatgagagg atcgcatcac

50

<210> 95

<211> 50

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic oligonucleotide

<400> 95

catcaccatc acgaaacctt cccgccgaaa tacctgcact acgacgaaga

50

<210> 96

<211> 49

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic oligonucleotide

<400> 96

aacctccac cagctgctgt gcgacaaatg cccgccgggt acccaaaca

49

<210> 97

<211> 26

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic oligonucleotide

<400> 97
tgtttgggta cccggcgggc atttgt 26

<210> 98
<211> 50
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic oligonucleotide

<400> 98
cgcacagcag ctggtgggag gtttcttcgt cgtagtcag gtatttcggc 50

<210> 99
<211> 49
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic oligonucleotide

<400> 99
gggaagggtt cgtgatggtg atggtgatgc gatcctctca tattttatt 49

<210> 100
<211> 50
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic oligonucleotide

<400> 100
cctcctttaa ttagttaaaa caaatctagt atcaaatcga ttgtgtttgt 50

<210> 101
<211> 59
<212> DNA
<213> Artificial sequence

<220>

<223> Synthetic oligonucleotide

<400> 101

acaaacacaa tcgatttgat actagatttg ttttaactaa ttaaaggagg aataaaatg 59

<210> 102

<211> 48

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic oligonucleotide

<400> 102

ctaattaaag gaggaataaa atgaaagaaa cttttcctcc aaaatatc 48

<210> 103

<211> 31

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic oligonucleotide

<400> 103

tgtttgggta cccggcggac atttatcaca c 31

<210> 104

<211> 59

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic oligonucleotide

<400> 104

acaaacacaa tcgatttgat actagatttg ttttaactaa ttaaaggagg aataaaatg 59

<210> 105

<211> 54

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic oligonucleotide

<400> 105

ctaattaaag gaggaataaa atgaaaaaaa aagaaacttt tcctccaaaa tadc

54

<210> 106

<211> 31

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic oligonucleotide

<400> 106

tgtttggtta cccggcggac atttatcaca c

31

<210> 107

<211> 44

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic oligonucleotide

<400> 107

cagcccgggt aaaatggaaa cgtttcctcc aaaatatctt catt

44

<210> 108

<211> 44

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic oligonucleotide

<400> 108

cgtttccatt ttacccgggc tgagcgagag gctcttctgc gtgt

44

<210> 109

<211> 45

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic oligonucleotide

<400> 109

cgctcagccc gggtaaaatg gaaacgttgc ctccaaaata cctgc

45

<210> 110

<211> 39

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic oligonucleotide

<400> 110

ccattttacc cgggctgagc gagaggctct tctgcgtgt

39

<210> 111

<211> 36

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic oligonucleotide

<400> 111

gaaaataagc tgcttagctg cagctgaacc aaaatc

36

<210> 112

<211> 34

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic oligonucleotide

<400> 112

cagctgcagc taagcagctt attttcacgg attg

34

<210> 113

<211> 36

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic oligonucleotide

<400> 113
aaaaataagc tgcttagctg cagctgaacc aaaatc

36

<210> 114

<211> 35

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic oligonucleotide

<400> 114
cagctgcagc taagcagctt atttttactg attgg

35

<210> 115

<211> 102

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic oligonucleotide

<400> 115
ctagaaggag gaataacata tggaaacttt tgctccaaaa tatcttcatt atgatgaaga 60
aactagtcac cagctgctgt gtgataaatg tccgccgggt ac 102

<210> 116

<211> 94

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic oligonucleotide

<400> 116

ccggcggaca tttatcacac agcagctgat gactagtttc ttcatacataa tgaagatatt 60

ttggagcaaa agtttccata tgttattcct cctt 94

<210> 117

<211> 62

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic oligonucleotide

<400> 117

ctagaaggag gaataacata tggaaacttt tcctgctaaa tatcttcatt atgatgaaga 60

aa 62

<210> 118

<211> 62

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic oligonucleotide

<400> 118

ctagtttctt catcataatg aagatattta gcaggaaaag tttccatatg ttattcctcc 60

tt 62

<210> 119

<211> 51

<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic

<400> 119

Tyr His Tyr Tyr Asp Gln Asn Gly Arg Met Cys Glu Glu Cys His Met
1 5 10 15

Cys Gln Pro Gly His Phe Leu Val Lys His Cys Lys Gln Pro Lys Arg
 20 25 30

Asp Thr Val Cys His Lys Pro Cys Glu Pro Gly Val Thr Tyr Thr Asp
 35 40 45

Asp Trp His
 50

<210> 120

<211> 2432

<212> DNA

<213> Rattus rattus

<220>

<221> CDS

<222> (124)..(1326)

<223>

<400> 120
 atcaaaggca gggcatactt cctgttgccc agaccttata taaaacgtca tgttcgctg 60

ggcagcagag aagcacctag cactggccca gcggctgccg cctgaggttt ccagaggacc 120

aca atg aac aag tgg ctg tgc tgt gca ctc ctg gtg ttc ttg gac atc 168
 Met Asn Lys Trp Leu Cys Cys Ala Leu Leu Val Phe Leu Asp Ile
 1 5 10 15

att gaa tgg aca acc cag gaa acc ttt cct cca aaa tac ttg cat tat 216
 Ile Glu Trp Thr Thr Gln Glu Thr Phe Pro Pro Lys Tyr Leu His Tyr
 20 25 30

gac cca gaa acc gga cgt cag ctc ttg tgt gac aaa tgt gct cct ggc 264
 Asp Pro Glu Thr Gly Arg Gln Leu Leu Cys Asp Lys Cys Ala Pro Gly
 35 40 45

acc tac cta aaa cag cac tgc aca gtc agg agg aag aca ctg tgt gtc 312
 Thr Tyr Leu Lys Gln His Cys Thr Val Arg Arg Lys Thr Leu Cys Val
 50 55 60

cct tgc cct gac tac tct tat aca gac agc tgg cac acg agt gat gaa 360
 Pro Cys Pro Asp Tyr Ser Tyr Thr Asp Ser Trp His Thr Ser Asp Glu
 65 70 75

tgc gtg tac tgc agc ccc gtg tgc aag gaa ctg cag acc gtg aaa cag 408
 Cys Val Tyr Cys Ser Pro Val Cys Lys Glu Leu Gln Thr Val Lys Gln
 80 85 90 95

gag tgc aac cgc acc cac aac cga gtg tgc gaa tgt gag gaa ggg cgc 456
 Glu Cys Asn Arg Thr His Asn Arg Val Cys Glu Cys Glu Glu Gly Arg
 100 105 110

tac ctg gag ctc gaa ttc tgc ttg aag cac cgg agc tgt ccc cca ggc 504
 Page 36

A-378CIP2C3.ST25.txt

Tyr	Leu	Glu	Leu	Glu	Phe	Cys	Leu	Lys	His	Arg	Ser	Cys	Pro	Pro	Gly	
			115					120					125			
tgt	ggt	gtg	ctg	cag	gct	ggg	acc	cca	gag	cga	aac	acg	ggt	tgc	aaa	552
Leu	Gly	Val	Leu	Gln	Ala	Gly	Thr	Pro	Glu	Arg	Asn	Thr	Val	Cys	Lys	
		130					135					140				
aga	tgt	ccg	gat	ggg	ttc	ttc	tca	ggt	gag	acg	tca	tcg	aaa	gca	ccc	600
Arg	Cys	Pro	Asp	Gly	Phe	Phe	Ser	Gly	Glu	Thr	Ser	Ser	Lys	Ala	Pro	
	145					150					155					
tgt	agg	aaa	cac	acc	aac	tgc	agc	tca	ctt	ggc	ctc	ctg	cta	att	cag	648
Cys	Arg	Lys	His	Thr	Asn	Cys	Ser	Ser	Leu	Gly	Leu	Leu	Leu	Ile	Gln	
160					165					170					175	
aaa	gga	aat	gca	aca	cat	gac	aat	gta	tgt	tcc	gga	aac	aga	gaa	gca	696
Lys	Gly	Asn	Ala	Thr	His	Asp	Asn	Val	Cys	Ser	Gly	Asn	Arg	Glu	Ala	
				180					185					190		
act	caa	aat	tgt	gga	ata	gat	gtc	acc	ctg	tgc	gaa	gag	gca	ttc	ttc	744
Thr	Gln	Asn	Cys	Gly	Ile	Asp	Val	Thr	Leu	Cys	Glu	Glu	Ala	Phe	Phe	
			195					200					205			
agg	ttt	gct	gtg	cct	acc	aag	att	ata	ccg	aat	tgg	ctg	agt	ggt	ctg	792
Arg	Phe	Ala	Val	Pro	Thr	Lys	Ile	Ile	Pro	Asn	Trp	Leu	Ser	Val	Leu	
		210					215					220				
gtg	gac	agt	ttg	cct	ggg	acc	aaa	gtg	aat	gca	gag	agt	gta	gag	agg	840
Val	Asp	Ser	Leu	Pro	Gly	Thr	Lys	Val	Asn	Ala	Glu	Ser	Val	Glu	Arg	
	225					230					235					
ata	aaa	cgg	aga	cac	agc	tcg	caa	gag	caa	act	ttc	cag	cta	ctt	aag	888
Ile	Lys	Arg	Arg	His	Ser	Ser	Gln	Glu	Gln	Thr	Phe	Gln	Leu	Leu	Lys	
240					245					250					255	
ctg	tgg	aag	cat	caa	aac	aga	gac	cag	gaa	atg	gtg	aag	aag	atc	atc	936
Leu	Trp	Lys	His	Gln	Asn	Arg	Asp	Gln	Glu	Met	Val	Lys	Lys	Ile	Ile	
				260				265						270		
caa	gac	att	gac	ctc	tgt	gaa	agc	agt	gtg	caa	cgg	cat	atc	ggc	cac	984
Gln	Asp	Ile	Asp	Leu	Cys	Glu	Ser	Ser	Val	Gln	Arg	His	Ile	Gly	His	
			275					280					285			
gcg	aac	ctc	acc	aca	gag	cag	ctc	cgc	atc	ttg	atg	gag	agc	ttg	cct	1032
Ala	Asn	Leu	Thr	Thr	Glu	Gln	Leu	Arg	Ile	Leu	Met	Glu	Ser	Leu	Pro	
		290					295					300				
ggg	aag	aag	atc	agc	cca	gac	gag	att	gag	aga	acg	aga	aag	acc	tgc	1080
Gly	Lys	Lys	Ile	Ser	Pro	Asp	Glu	Ile	Glu	Arg	Thr	Arg	Lys	Thr	Cys	
	305					310					315					
aaa	ccc	agc	gag	cag	ctc	ctg	aag	cta	ctg	agc	ttg	tgg	agg	atc	aaa	1128
Lys	Pro	Ser	Glu	Gln	Leu	Leu	Lys	Leu	Leu	Ser	Leu	Trp	Arg	Ile	Lys	
320					325					330					335	
aat	gga	gac	caa	gac	acc	ttg	aag	ggc	ctg	atg	tac	gca	ctc	aag	cac	1176
Asn	Gly	Asp	Gln	Asp	Thr	Leu	Lys	Gly	Leu	Met	Tyr	Ala	Leu	Lys	His	
				340				345						350		
ttg	aaa	gca	tac	cac	ttt	ccc	aaa	acc	gtc	acc	cac	agt	ctg	agg	aag	1224
Leu	Lys	Ala	Tyr	His	Phe	Pro	Lys	Thr	Val	Thr	His	Ser	Leu	Arg	Lys	
			355					360					365			
acc	atc	agg	ttc	ttg	cac	agc	ttc	acc	atg	tac	cga	ttg	tat	cag	aaa	1272
Thr	Ile	Arg	Phe	Leu	His	Ser	Phe	Thr	Met	Tyr	Arg	Leu	Tyr	Gln	Lys	
		370					375					380				
ctc	ttt	cta	gaa	atg	ata	ggg	aat	cag	gtt	caa	tca	gtg	aag	ata	agc	1320

Leu Phe Leu Glu Met Ile Gly Asn Gln Val Gln Ser Val Lys Ile Ser
 385 390 395

tgc tta tagttaggaa tggctactgg gctgtttctt caggatgggc caacactgat 1376
 Cys Leu
 400

ggagcagatg gctgcttctc cggctcttga aatggcagtt gattcctttc tcatcagttg 1436
 gtgggaatga agatcctcca gcccaacaca cacactgggg agtctgagtc aggagagtga 1496
 ggcaggctat ttgataattg tgcaaagctg ccagggtgtac acctagaaag tcaagcacc 1556
 tgagaaagag gatattttta taacctcaaa cataggccct ttccttcctc tccttatgga 1616
 tgagtactca gaaggcttct actatcttct gtgtcatccc tagatgaagg cctcttttat 1676
 ttattttttt attctttttt tcggagctgg ggaccgaacc cagggccttg cgcttgcgag 1736
 gcaagtgtc taccactgag ctaaatctcc aaccctgaa ggcctctttc tttctgcctc 1796
 tgatagtcta tgacattctt ttttctacaa ttcgtatcag gtgcacgagc cttatcccat 1856
 ttgtaggttt ctaggcaagt tgaccgttag ctatttttcc ctctgaagat ttgattcgag 1916
 ttgcagactt ggctagacaa gcaggggtag gttatggtag tttatttaac agactgccac 1976
 caggagtcca gtgtttcttg ttcctctgta gttgtaccta agctgactcc aagtacattt 2036
 agtatgaaaa ataatcaaca aattttattc cttctatcaa cattggctag ctttgtttca 2096
 gggcactaaa agaaactact atatggagaa agaattgata ttgccccaa cgttcaacaa 2156
 cccaatagtt tatccagctg tcatgcctgg ttcagtgtct actgactatg cgccctctta 2216
 ttactgcatg cagtaattca actggaaata gtaataataa taatagaaat aaaatctaga 2276
 ctccattgga tctctctgaa tatgggaata tctaacttaa gaagctttga gatttcagtt 2336
 gtgttaaagg cttttattaa aaagctgatg ctcttctgta aaagttacta atatatctgt 2396
 aagactatta cagtattgct atttatatcc atccag 2432

<210> 121

<211> 401

<212> PRT

<213> Rattus rattus

<400> 121

Met Asn Lys Trp Leu Cys Cys Ala Leu Leu Val Phe Leu Asp Ile Ile
 1 5 10 15

Glu Trp Thr Thr Gln Glu Thr Phe Pro Pro Lys Tyr Leu His Tyr Asp
 20 25 30

Pro Glu Thr Gly Arg Gln Leu Leu Cys Asp Lys Cys Ala Pro Gly Thr
 35 40 45

Tyr Leu Lys Gln His Cys Thr Val Arg Arg Lys Thr Leu Cys Val Pro
 50 55 60
 Cys Pro Asp Tyr Ser Tyr Thr Asp Ser Trp His Thr Ser Asp Glu Cys
 65 70 75 80
 Val Tyr Cys Ser Pro Val Cys Lys Glu Leu Gln Thr Val Lys Gln Glu
 85 90 95
 Cys Asn Arg Thr His Asn Arg Val Cys Glu Cys Glu Glu Gly Arg Tyr
 100 105 110
 Leu Glu Leu Glu Phe Cys Leu Lys His Arg Ser Cys Pro Pro Gly Leu
 115 120 125
 Gly Val Leu Gln Ala Gly Thr Pro Glu Arg Asn Thr Val Cys Lys Arg
 130 135 140
 Cys Pro Asp Gly Phe Phe Ser Gly Glu Thr Ser Ser Lys Ala Pro Cys
 145 150 155 160
 Arg Lys His Thr Asn Cys Ser Ser Leu Gly Leu Leu Leu Ile Gln Lys
 165 170 175
 Gly Asn Ala Thr His Asp Asn Val Cys Ser Gly Asn Arg Glu Ala Thr
 180 185 190
 Gln Asn Cys Gly Ile Asp Val Thr Leu Cys Glu Glu Ala Phe Phe Arg
 195 200 205
 Phe Ala Val Pro Thr Lys Ile Ile Pro Asn Trp Leu Ser Val Leu Val
 210 215 220
 Asp Ser Leu Pro Gly Thr Lys Val Asn Ala Glu Ser Val Glu Arg Ile
 225 230 235 240
 Lys Arg Arg His Ser Ser Gln Glu Gln Thr Phe Gln Leu Leu Lys Leu
 245 250 255
 Trp Lys His Gln Asn Arg Asp Gln Glu Met Val Lys Lys Ile Ile Gln
 260 265 270
 Asp Ile Asp Leu Cys Glu Ser Ser Val Gln Arg His Ile Gly His Ala
 275 280 285
 Asn Leu Thr Thr Glu Gln Leu Arg Ile Leu Met Glu Ser Leu Pro Gly
 290 295 300
 Lys Lys Ile Ser Pro Asp Glu Ile Glu Arg Thr Arg Lys Thr Cys Lys
 305 310 315 320

Pro Ser Glu Gln Leu Leu Lys Leu Leu Ser Leu Trp Arg Ile Lys Asn
 325 330 335

Gly Asp Gln Asp Thr Leu Lys Gly Leu Met Tyr Ala Leu Lys His Leu
 340 345 350

Lys Ala Tyr His Phe Pro Lys Thr Val Thr His Ser Leu Arg Lys Thr
 355 360 365

Ile Arg Phe Leu His Ser Phe Thr Met Tyr Arg Leu Tyr Gln Lys Leu
 370 375 380

Phe Leu Glu Met Ile Gly Asn Gln Val Gln Ser Val Lys Ile Ser Cys
 385 390 395 400

Leu

<210> 122

<211> 1324

<212> DNA

<213> Mus musculus

<220>

<221> CDS

<222> (90)..(1292)

<223>

<400> 122

ccttatataa acgtcatgat tgcctgggct gcagagacgc acctagcact gacccagcgg 60

ctgcctcctg aggtttcccg aggaccaca atg aac aag tgg ctg tgc tgc gca 113
 Met Asn Lys Trp Leu Cys Cys Ala
 1 5

ctc ctg gtg ctc ctg gac atc att gaa tgg aca acc cag gaa acc ctt 161
 Leu Leu Val Leu Leu Asp Ile Ile Glu Trp Thr Thr Gln Glu Thr Leu
 10 15 20

cct cca aag tac ttg cat tat gac cca gaa act ggt cat cag ctc ctg 209
 Pro Pro Lys Tyr Leu His Tyr Asp Pro Glu Thr Gly His Gln Leu Leu
 25 30 35 40

tgt gac aaa tgt gct cct ggc acc tac cta aaa cag cac tgc aca gtg 257
 Cys Asp Lys Cys Ala Pro Gly Thr Tyr Leu Lys Gln His Cys Thr Val
 45 50 55

agg agg aag aca ttg tgt gtc cct tgc cct gac cac tct tat acg gac 305
 Arg Arg Lys Thr Leu Cys Val Pro Cys Pro Asp His Ser Tyr Thr Asp
 60 65 70

agc tgg cac acc agt gat gag tgt gtg tat tgc agc cca gtg tgc aag 353
 Page 40

A-378CIP2C3.ST25.txt

Ser Trp His Thr Ser Asp Glu Cys Val Tyr Cys Ser Pro Val Cys Lys
75 80 85

gaa ctg cag tcc gtg aag cag gag tgc aac cgc acc cac aac cga gtg 401
Glu Leu Gln Ser Val Lys Gln Glu Cys Asn Arg Thr His Asn Arg Val
90 95 100

tgt gag tgt gag gaa ggg cgt tac ctg gag atc gaa ttc tgc ttg aag 449
Cys Glu Cys Glu Glu Gly Arg Tyr Leu Glu Ile Glu Phe Cys Leu Lys
105 110 115 120

cac cgg agc tgt ccc ccg ggc tcc ggc gtg gtg caa gct gga acc cca 497
His Arg Ser Cys Pro Pro Gly Ser Gly Val Val Gln Ala Gly Thr Pro
125 130 135

gag cga aac aca gtt tgc aaa aaa tgt cca gat ggg ttc ttc tca ggt 545
Glu Arg Asn Thr Val Cys Lys Lys Cys Pro Asp Gly Phe Phe Ser Gly
140 145 150

gag act tca tcg aaa gca ccc tgt ata aaa cac acg aac tgc agc aca 593
Glu Thr Ser Ser Lys Ala Pro Cys Ile Lys His Thr Asn Cys Ser Thr
155 160 165

ttt ggc ctc ctg cta att cag aaa gga aat gca aca cat gac aac gtg 641
Phe Gly Leu Leu Leu Ile Gln Lys Gly Asn Ala Thr His Asp Asn Val
170 175 180

tgt tcc gga aac aga gaa gcc acg caa aag tgt gga ata gat gtc acc 689
Cys Ser Gly Asn Arg Glu Ala Thr Gln Lys Cys Gly Ile Asp Val Thr
185 190 195 200

ctg tgt gaa gag gcc ttc ttc agg ttt gct gtt cct acc aag att ata 737
Leu Cys Glu Glu Ala Phe Phe Arg Phe Ala Val Pro Thr Lys Ile Ile
205 210 215

cca aat tgg ctg agt gtt ttg gtg gac agt ttg cct ggg acc aaa gtg 785
Pro Asn Trp Leu Ser Val Leu Val Asp Ser Leu Pro Gly Thr Lys Val
220 225 230

aat gcc gag agt gta gag agg ata aaa cgg aga cac agc tca caa gag 833
Asn Ala Glu Ser Val Glu Arg Ile Lys Arg Arg His Ser Ser Gln Glu
235 240 245

caa acc ttc cag ctg ctg aag ctg tgg aaa cat caa aac aga gac cag 881
Gln Thr Phe Gln Leu Leu Lys Leu Trp Lys His Gln Asn Arg Asp Gln
250 255 260

gaa atg gtg aag aag atc atc caa gac att gac ctc tgt gaa agc agc 929
Glu Met Val Lys Lys Ile Ile Gln Asp Ile Asp Leu Cys Glu Ser Ser
265 270 275 280

gtg cag cgg cat ctc ggc cac tcg aac ctc acc aca gag cag ctt ctt 977
Val Gln Arg His Leu Gly His Ser Asn Leu Thr Thr Glu Gln Leu Leu
285 290 295

gcc ttg atg gag agc ctg cct ggg aag aag atc agc cca gaa gag att 1025
Ala Leu Met Glu Ser Leu Pro Gly Lys Lys Ile Ser Pro Glu Glu Ile
300 305 310

gag aga acg aga aag acc tgc aaa tcg agc gag cag ctc ctg aag cta 1073
Glu Arg Thr Arg Lys Thr Cys Lys Ser Ser Glu Gln Leu Leu Lys Leu
315 320 325

ctc agt tta tgg agg atc aaa aat ggt gac caa gac acc ttg aag ggc 1121
Leu Ser Leu Trp Arg Ile Lys Asn Gly Asp Gln Asp Thr Leu Lys Gly
330 335 340

ctg atg tat gcc ctc aag cac ttg aaa aca tcc cac ttt ccc aaa act 1169

A-378CIP2C3.ST25.txt

Leu Met Tyr Ala Leu Lys His Leu Lys Thr Ser His Phe Pro Lys Thr
 345 350 355 360

gtc acc cac agt ctg agg aag acc atg agg ttc ctg cac agc ttc aca 1217
 Val Thr His Ser Leu Arg Lys Thr Met Arg Phe Leu His Ser Phe Thr
 365 370 375

atg tac aga ctg tat cag aag ctc ttt tta gaa atg ata ggg aat cag 1265
 Met Tyr Arg Leu Tyr Gln Lys Leu Phe Leu Glu Met Ile Gly Asn Gln
 380 385 390

gtt caa tcc gtg aaa ata agc tgc tta taactaggaa tggctactgg 1312
 Val Gln Ser Val Lys Ile Ser Cys Leu
 395 400

gctgtttctt ca 1324

<210> 123

<211> 401

<212> PRT

<213> Mus musculus

<400> 123

Met Asn Lys Trp Leu Cys Cys Ala Leu Leu Val Leu Leu Asp Ile Ile
 1 5 10 15

Glu Trp Thr Thr Gln Glu Thr Leu Pro Pro Lys Tyr Leu His Tyr Asp
 20 25 30

Pro Glu Thr Gly His Gln Leu Leu Cys Asp Lys Cys Ala Pro Gly Thr
 35 40 45

Tyr Leu Lys Gln His Cys Thr Val Arg Arg Lys Thr Leu Cys Val Pro
 50 55 60

Cys Pro Asp His Ser Tyr Thr Asp Ser Trp His Thr Ser Asp Glu Cys
 65 70 75 80

Val Tyr Cys Ser Pro Val Cys Lys Glu Leu Gln Ser Val Lys Gln Glu
 85 90 95

Cys Asn Arg Thr His Asn Arg Val Cys Glu Cys Glu Glu Gly Arg Tyr
 100 105 110

Leu Glu Ile Glu Phe Cys Leu Lys His Arg Ser Cys Pro Pro Gly Ser
 115 120 125

Gly Val Val Gln Ala Gly Thr Pro Glu Arg Asn Thr Val Cys Lys Lys
 130 135 140

Cys Pro Asp Gly Phe Phe Ser Gly Glu Thr Ser Ser Lys Ala Pro Cys
 145 150 155 160

Ile Lys His Thr Asn Cys Ser Thr Phe Gly Leu Leu Leu Ile Gln Lys
 165 170 175
 Gly Asn Ala Thr His Asp Asn Val Cys Ser Gly Asn Arg Glu Ala Thr
 180 185 190
 Gln Lys Cys Gly Ile Asp Val Thr Leu Cys Glu Glu Ala Phe Phe Arg
 195 200 205
 Phe Ala Val Pro Thr Lys Ile Ile Pro Asn Trp Leu Ser Val Leu Val
 210 215 220
 Asp Ser Leu Pro Gly Thr Lys Val Asn Ala Glu Ser Val Glu Arg Ile
 225 230 235 240
 Lys Arg Arg His Ser Ser Gln Glu Gln Thr Phe Gln Leu Leu Lys Leu
 245 250 255
 Trp Lys His Gln Asn Arg Asp Gln Glu Met Val Lys Lys Ile Ile Gln
 260 265 270
 Asp Ile Asp Leu Cys Glu Ser Ser Val Gln Arg His Leu Gly His Ser
 275 280 285
 Asn Leu Thr Thr Glu Gln Leu Leu Ala Leu Met Glu Ser Leu Pro Gly
 290 295 300
 Lys Lys Ile Ser Pro Glu Glu Ile Glu Arg Thr Arg Lys Thr Cys Lys
 305 310 315 320
 Ser Ser Glu Gln Leu Leu Lys Leu Leu Ser Leu Trp Arg Ile Lys Asn
 325 330 335
 Gly Asp Gln Asp Thr Leu Lys Gly Leu Met Tyr Ala Leu Lys His Leu
 340 345 350
 Lys Thr Ser His Phe Pro Lys Thr Val Thr His Ser Leu Arg Lys Thr
 355 360 365
 Met Arg Phe Leu His Ser Phe Thr Met Tyr Arg Leu Tyr Gln Lys Leu
 370 375 380
 Phe Leu Glu Met Ile Gly Asn Gln Val Gln Ser Val Lys Ile Ser Cys
 385 390 395 400
 Leu

<210> 124

<211> 1355

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> (94)..(1296)

<223>

<400> 124

gtatatataa cgtgatgagc gtacgggtgc ggagacgcac cggagcgctc gcccagccgc 60

cgctccaagc ccctgagggtt tccggggacc aca atg aac aag ttg ctg tgc tgc 114
Met Asn Lys Leu Leu Cys Cys
1 5gcg ctc gtg ttt ctg gac atc tcc att aag tgg acc acc cag gaa acg 162
Ala Leu Val Phe Leu Asp Ile Ser Ile Lys Trp Thr Thr Gln Glu Thr
10 15 20ttt cct cca aag tac ctt cat tat gac gaa gaa acc tct cat cag ctg 210
Phe Pro Pro Lys Tyr Leu His Tyr Asp Glu Glu Thr Ser His Gln Leu
25 30 35ttg tgt gac aaa tgt cct cct ggt acc tac cta aaa caa cac tgt aca 258
Leu Cys Asp Lys Cys Pro Pro Gly Thr Tyr Leu Lys Gln His Cys Thr
40 45 50 55gca aag tgg aag acc gtg tgc gcc cct tgc cct gac cac tac tac aca 306
Ala Lys Trp Lys Thr Val Cys Ala Pro Cys Pro Asp His Tyr Tyr Thr
60 65 70gac agc tgg cac acc agt gac gag tgt cta tac tgc agc ccc gtg tgc 354
Asp Ser Trp His Thr Ser Asp Glu Cys Leu Tyr Cys Ser Pro Val Cys
75 80 85aag gag ctg cag tac gtc aag cag gag tgc aat cgc acc cac aac cgc 402
Lys Glu Leu Gln Tyr Val Lys Gln Glu Cys Asn Arg Thr His Asn Arg
90 95 100gtg tgc gaa tgc aag gaa ggg cgc tac ctt gag ata gag ttc tgc ttg 450
Val Cys Glu Cys Lys Glu Gly Arg Tyr Leu Glu Ile Glu Phe Cys Leu
105 110 115aaa cat agg agc tgc cct cct gga ttt gga gtg gtg caa gct gga acc 498
Lys His Arg Ser Cys Pro Pro Gly Phe Gly Val Val Gln Ala Gly Thr
120 125 130 135cca gag cga aat aca gtt tgc aaa aga tgt cca gat ggg ttc ttc tca 546
Pro Glu Arg Asn Thr Val Cys Lys Arg Cys Pro Asp Gly Phe Phe Ser
140 145 150aat gag acg tca tct aaa gca ccc tgt aga aaa cac aca aat tgc agt 594
Asn Glu Thr Ser Ser Lys Ala Pro Cys Arg Lys His Thr Asn Cys Ser
155 160 165gtc ttt ggt ctc ctg cta act cag aaa gga aat gca aca cac gac aac 642
Val Phe Gly Leu Leu Leu Thr Gln Lys Gly Asn Ala Thr His Asp Asn
170 175 180

A-378CIP2C3.ST25.txt

ata	tgt	tcc	gga	aac	agt	gaa	tca	act	caa	aaa	tgt	gga	ata	gat	gtt	690
Ile	Cys	Ser	Gly	Asn	Ser	Glu	Ser	Thr	Gln	Lys	Cys	Gly	Ile	Asp	Val	
	185					190					195					
acc	ctg	tgt	gag	gag	gca	ttc	ttc	agg	ttt	gct	gtt	cct	aca	aag	ttt	738
Thr	Leu	Cys	Glu	Glu	Ala	Phe	Phe	Arg	Phe	Ala	Val	Pro	Thr	Lys	Phe	
200					205					210					215	
acg	cct	aac	tgg	ctt	agt	gtc	ttg	gta	gac	aat	ttg	cct	ggc	acc	aaa	786
Thr	Pro	Asn	Trp	Leu	Ser	Val	Leu	Val	Asp	Asn	Leu	Pro	Gly	Thr	Lys	
				220					225					230		
gta	aac	gca	gag	agt	gta	gag	agg	ata	aaa	cgg	caa	cac	agc	tca	caa	834
Val	Asn	Ala	Glu	Ser	Val	Glu	Arg	Ile	Lys	Arg	Gln	His	Ser	Ser	Gln	
			235					240					245			
gaa	cag	act	ttc	cag	ctg	ctg	aag	tta	tgg	aaa	cat	caa	aac	aaa	gcc	882
Glu	Gln	Thr	Phe	Gln	Leu	Leu	Lys	Leu	Trp	Lys	His	Gln	Asn	Lys	Ala	
		250					255					260				
caa	gat	ata	gtc	aag	aag	atc	atc	caa	gat	att	gac	ctc	tgt	gaa	aac	930
Gln	Asp	Ile	Val	Lys	Lys	Ile	Ile	Gln	Asp	Ile	Asp	Leu	Cys	Glu	Asn	
	265					270					275					
agc	gtg	cag	cgg	cac	att	gga	cat	gct	aac	ctc	acc	ttc	gag	cag	ctt	978
Ser	Val	Gln	Arg	His	Ile	Gly	His	Ala	Asn	Leu	Thr	Phe	Glu	Gln	Leu	
280					285					290					295	
cgt	agc	ttg	atg	gaa	agc	tta	ccg	gga	aag	aaa	gtg	gga	gca	gaa	gac	1026
Arg	Ser	Leu	Met	Glu	Ser	Leu	Pro	Gly	Lys	Lys	Val	Gly	Ala	Glu	Asp	
				300					305					310		
att	gaa	aaa	aca	ata	aag	gca	tgc	aaa	ccc	agt	gac	cag	atc	ctg	aag	1074
Ile	Glu	Lys	Thr	Ile	Lys	Ala	Cys	Lys	Pro	Ser	Asp	Gln	Ile	Leu	Lys	
			315					320					325			
ctg	ctc	agt	ttg	tgg	cga	ata	aaa	aat	ggc	gac	caa	gac	acc	ttg	aag	1122
Leu	Leu	Ser	Leu	Trp	Arg	Ile	Lys	Asn	Gly	Asp	Gln	Asp	Thr	Leu	Lys	
		330					335					340				
ggc	cta	atg	cac	gca	cta	aag	cac	tca	aag	acg	tac	cac	ttt	ccc	aaa	1170
Gly	Leu	Met	His	Ala	Leu	Lys	His	Ser	Lys	Thr	Tyr	His	Phe	Pro	Lys	
	345					350					355					
act	gtc	act	cag	agt	cta	aag	aag	acc	atc	agg	ttc	ctt	cac	agc	ttc	1218
Thr	Val	Thr	Gln	Ser	Leu	Lys	Lys	Thr	Ile	Arg	Phe	Leu	His	Ser	Phe	
360					365					370					375	
aca	atg	tac	aaa	ttg	tat	cag	aag	tta	ttt	tta	gaa	atg	ata	ggt	aac	1266
Thr	Met	Tyr	Lys	Leu	Tyr	Gln	Lys	Leu	Phe	Leu	Glu	Met	Ile	Gly	Asn	
				380				385						390		
cag	gtc	caa	tca	gta	aaa	ata	agc	tgc	tta	taactgga	aaa	tgccattga				1316
Gln	Val	Gln	Ser	Val	Lys	Ile	Ser	Cys	Leu							
			395					400								
gctg	tttc	ctt	caca	attggc	gagat	cccat	ggatg	ataa								1355
<210>	125															
<211>	401															
<212>	PRT															
<213>	Homo sapiens															

<400> 125

Met Asn Lys Leu Leu Cys Cys Ala Leu Val Phe Leu Asp Ile Ser Ile
 1 5 10 15
 Lys Trp Thr Thr Gln Glu Thr Phe Pro Pro Lys Tyr Leu His Tyr Asp
 20 25 30
 Glu Glu Thr Ser His Gln Leu Leu Cys Asp Lys Cys Pro Pro Gly Thr
 35 40 45
 Tyr Leu Lys Gln His Cys Thr Ala Lys Trp Lys Thr Val Cys Ala Pro
 50 55 60
 Cys Pro Asp His Tyr Tyr Thr Asp Ser Trp His Thr Ser Asp Glu Cys
 65 70 75 80
 Leu Tyr Cys Ser Pro Val Cys Lys Glu Leu Gln Tyr Val Lys Gln Glu
 85 90 95
 Cys Asn Arg Thr His Asn Arg Val Cys Glu Cys Lys Glu Gly Arg Tyr
 100 105 110
 Leu Glu Ile Glu Phe Cys Leu Lys His Arg Ser Cys Pro Pro Gly Phe
 115 120 125
 Gly Val Val Gln Ala Gly Thr Pro Glu Arg Asn Thr Val Cys Lys Arg
 130 135 140
 Cys Pro Asp Gly Phe Phe Ser Asn Glu Thr Ser Ser Lys Ala Pro Cys
 145 150 155 160
 Arg Lys His Thr Asn Cys Ser Val Phe Gly Leu Leu Leu Thr Gln Lys
 165 170 175
 Gly Asn Ala Thr His Asp Asn Ile Cys Ser Gly Asn Ser Glu Ser Thr
 180 185 190
 Gln Lys Cys Gly Ile Asp Val Thr Leu Cys Glu Glu Ala Phe Phe Arg
 195 200 205
 Phe Ala Val Pro Thr Lys Phe Thr Pro Asn Trp Leu Ser Val Leu Val
 210 215 220
 Asp Asn Leu Pro Gly Thr Lys Val Asn Ala Glu Ser Val Glu Arg Ile
 225 230 235 240
 Lys Arg Gln His Ser Ser Gln Glu Gln Thr Phe Gln Leu Leu Lys Leu
 245 250 255

Trp Lys His Gln Asn Lys Ala Gln Asp Ile Val Lys Lys Ile Ile Gln
 260 265 270

Asp Ile Asp Leu Cys Glu Asn Ser Val Gln Arg His Ile Gly His Ala
 275 280 285

Asn Leu Thr Phe Glu Gln Leu Arg Ser Leu Met Glu Ser Leu Pro Gly
 290 295 300

Lys Lys Val Gly Ala Glu Asp Ile Glu Lys Thr Ile Lys Ala Cys Lys
 305 310 315 320

Pro Ser Asp Gln Ile Leu Lys Leu Leu Ser Leu Trp Arg Ile Lys Asn
 325 330 335

Gly Asp Gln Asp Thr Leu Lys Gly Leu Met His Ala Leu Lys His Ser
 340 345 350

Lys Thr Tyr His Phe Pro Lys Thr Val Thr Gln Ser Leu Lys Lys Thr
 355 360 365

Ile Arg Phe Leu His Ser Phe Thr Met Tyr Lys Leu Tyr Gln Lys Leu
 370 375 380

Phe Leu Glu Met Ile Gly Asn Gln Val Gln Ser Val Lys Ile Ser Cys
 385 390 395 400

Leu

<210> 126

<211> 139

<212> PRT

<213> Homo sapiens

<400> 126

Cys Pro Gln Gly Lys Tyr Ile His Pro Gln Asn Asn Ser Ile Cys Cys
 1 5 10 15

Thr Lys Cys His Lys Gly Thr Tyr Leu Tyr Asn Asp Cys Pro Gly Pro
 20 25 30

Gly Gln Asp Thr Asp Cys Arg Glu Cys Glu Ser Gly Ser Phe Thr Ala
 35 40 45

Ser Glu Asn His Leu Arg His Cys Leu Ser Cys Ser Lys Cys Arg Lys
 50 55 60

Glu Met Gly Gln Val Glu Ile Ser Ser Cys Thr Val Asp Arg Asp Thr
 65 70 75 80

Val Cys Gly Cys Arg Lys Asn Gln Tyr Arg His Tyr Trp Ser Glu Asn
 85 90 95

Leu Phe Gln Cys Phe Asn Cys Ser Leu Cys Leu Asn Gly Thr Val His
 100 105 110

Leu Ser Cys Gln Glu Lys Gln Asn Thr Val Cys Thr Cys His Ala Gly
 115 120 125

Phe Phe Leu Arg Glu Asn Glu Cys Val Ser Cys
 130 135

<210> 127

<211> 48

<212> DNA

<213> Artificial sequence

<220>

<223> synthetic oligonucleotide

<400> 127

ccggcggaca ttatcacac agcagctgat gagaagtttc ttcattcca

48

<210> 128

<211> 219

<212> PRT

<213> Homo sapiens

<400> 128

Met Leu Gly Ile Trp Thr Leu Leu Pro Leu Val Leu Thr Ser Val Ala
 1 5 10 15

Arg Leu Ser Ser Lys Ser Val Asn Ala Gln Val Thr Asp Ile Asn Ser
 20 25 30

Lys Gly Leu Glu Leu Arg Lys Thr Val Thr Thr Val Glu Thr Gln Asn
 35 40 45

Leu Glu Gly Leu His His Asp Gly Gln Phe Cys His Lys Pro Cys Pro
 50 55 60

Pro Gly Glu Arg Lys Ala Arg Asp Cys Thr Val Asn Gly Asp Glu Pro
 65 70 75 80

Asp Cys Val Pro Cys₈₅ Gln Glu Gly Lys₉₀ Glu Tyr Thr Asp Lys Ala His₉₅

Phe Ser Ser Lys₁₀₀ Cys Arg Arg Cys₁₀₅ Arg Leu Cys Asp Glu Gly₁₁₀ His Gly

Leu Glu Val₁₁₅ Glu Ile Asn Cys Thr₁₂₀ Arg Thr Gln Asn Thr₁₂₅ Lys Cys Arg

Cys Lys₁₃₀ Pro Asn Phe Phe Cys₁₃₅ Asn Ser Thr Val Cys₁₄₀ Glu His Cys Asp

Pro Cys Thr Lys Cys Glu₁₅₀ His Gly Ile Ile Lys₁₅₅ Glu Cys Thr Leu Thr₁₆₀

Ser Asn Thr Lys Cys₁₆₅ Lys Glu Glu Gly Ser₁₇₀ Arg Ser Asn Leu Gly₁₇₅ Trp

Leu Cys Leu₁₈₀ Leu Leu Pro Ile Pro₁₈₅ Leu Ile Val Trp Val₁₉₀ Lys Arg

Lys Glu Val₁₉₅ Gln Lys Thr Cys Arg₂₀₀ Lys His Arg Lys Glu₂₀₅ Asn Gln Gly

Ser His Glu Ser Pro Thr Leu₂₁₀ Asn Pro Glu Thr₂₁₅

<210> 129

<211> 280

<212> PRT

<213> Homo sapiens

<400> 129

Met Gly Leu Ser Thr Val Pro Asp Leu₁ Leu₁₀ Leu Pro Leu Val₁₅ Leu

Glu Leu Leu Val₂₀ Gly Ile Tyr Pro Ser₂₅ Gly Val Ile Gly Leu₃₀ Val Pro

His Leu Gly₃₅ Asp Arg Glu Lys Arg₄₀ Asp Ser Val Cys₄₅ Pro Gln Gly Lys

Tyr Ile His Pro Gln Asn Asn₅₅ Ser Ile Cys Cys Thr₆₀ Lys Cys His Lys

Gly Thr Tyr Leu Tyr Asn₇₀ Asp Cys Pro Gly Pro₇₅ Gly Gln Asp Thr Asp₈₀

Cys Arg Glu Cys Glu Ser Gly Ser Phe Thr Ala Ser Glu Asn His Leu
 85 90 95

Arg His Cys Leu Ser Cys Ser Lys Cys Arg Lys Glu Met Gly Gln Val
 100 105 110

Glu Ile Ser Ser Cys Thr Val Asp Arg Asp Thr Val Cys Gly Cys Arg
 115 120 125

Lys Asn Gln Tyr Arg His Tyr Trp Ser Glu Asn Leu Phe Gln Cys Phe
 130 135 140

Asn Cys Ser Leu Cys Leu Asn Gly Thr Val His Leu Ser Cys Gln Glu
 145 150 155 160

Lys Gln Asn Thr Val Cys Thr Cys His Ala Gly Phe Phe Leu Arg Glu
 165 170 175

Asn Glu Cys Val Ser Cys Ser Asn Cys Lys Lys Ser Leu Glu Cys Thr
 180 185 190

Lys Leu Cys Leu Pro Gln Ile Glu Asn Val Lys Gly Thr Glu Asp Ser
 195 200 205

Gly Thr Thr Val Leu Leu Pro Leu Val Ile Phe Phe Gly Leu Cys Leu
 210 215 220

Leu Ser Leu Leu Phe Ile Gly Leu Met Tyr Arg Tyr Gln Arg Trp Lys
 225 230 235 240

Ser Lys Leu Tyr Ser Ile Val Cys Gly Lys Ser Thr Pro Glu Lys Glu
 245 250 255

Gly Glu Leu Glu Gly Thr Thr Thr Lys Pro Leu Ala Pro Asn Pro Ser
 260 265 270

Phe Ser Pro Thr Pro Gly Phe Thr
 275 280

<210> 130

<211> 207

<212> PRT

<213> Shope fibroma virus

<400> 130

Met Leu Arg Leu Ile Ala Leu Leu Val Cys Val Val Tyr Val Tyr Gly
 1 5 10 15

Asp Asp Val Pro Tyr Ser Ser Asn Gln Gly Lys Cys Gly Gly His Asp
 20 25 30

Tyr Glu Lys Asp Gly Leu Cys Cys Ala Ser Cys His Pro Gly Phe Tyr
 35 40 45

Ala Ser Arg Leu Cys Gly Pro Gly Ser Asn Thr Val Cys Ser Pro Cys
 50 55 60

Glu Asp Gly Thr Phe Thr Ala Ser Thr Asn His Ala Pro Ala Cys Val
 65 70 75 80

Ser Cys Arg Gly Pro Cys Thr Gly His Leu Ser Glu Ser Gln Pro Cys
 85 90 95

Asp Arg Thr His Asp Arg Val Cys Asn Cys Ser Thr Gly Asn Tyr Cys
 100 105 110

Leu Leu Lys Gly Gln Asn Gly Cys Arg Ile Cys Ala Pro Gln Thr Lys
 115 120 125

Cys Pro Ala Gly Tyr Gly Val Ser Gly His Thr Arg Ala Gly Asp Thr
 130 135 140

Leu Cys Glu Lys Cys Pro Pro His Thr Tyr Ser Asp Ser Leu Ser Pro
 145 150 155 160

Thr Glu Arg Cys Gly Thr Ser Phe Asn Tyr Ile Ser Val Gly Phe Asn
 165 170 175

Leu Tyr Pro Val Asn Glu Thr Ser Cys Thr Thr Thr Ala Gly His Asn
 180 185 190

Glu Val Ile Lys Thr Lys Glu Phe Thr Val Thr Leu Asn Tyr Thr
 195 200 205

<210> 131

<211> 227

<212> PRT

<213> Homo sapiens

<400> 131

Met Ala Pro Val Ala Val Trp Ala Ala Leu Ala Val Gly Leu Glu Leu
 1 5 10 15

Trp Ala Ala Ala His Ala Leu Pro Ala Gln Val Ala Phe Thr Pro Tyr
 20 25 30

Ala Pro Glu Pro Gly Ser Thr Cys Arg Leu Arg Glu Tyr Tyr Asp Gln
 35 40 45

Thr Ala Gln Met Cys Cys Ser Lys Cys Ser Pro Gly Gln His Ala Lys
 50 55 60

Val Phe Cys Thr Lys Thr Ser Asp Thr Val Cys Asp Ser Cys Glu Asp
 65 70 75 80

Ser Thr Tyr Thr Gln Leu Trp Asn Trp Val Pro Glu Cys Leu Ser Cys
 85 90 95

Gly Ser Arg Cys Ser Ser Asp Gln Val Glu Thr Gln Ala Cys Thr Arg
 100 105 110

Glu Gln Asn Arg Ile Cys Thr Cys Arg Pro Gly Trp Tyr Cys Ala Leu
 115 120 125

Ser Lys Gln Glu Gly Cys Arg Leu Cys Ala Pro Leu Arg Lys Cys Arg
 130 135 140

Pro Gly Phe Gly Val Ala Arg Pro Gly Thr Glu Thr Ser Asp Val Val
 145 150 155 160

Cys Lys Pro Cys Ala Pro Gly Thr Phe Ser Asn Thr Thr Ser Ser Thr
 165 170 175

Asp Ile Cys Arg Pro His Gln Ile Cys Asn Val Val Ala Ile Pro Gly
 180 185 190

Asn Ala Ser Arg Asp Ala Val Cys Thr Ser Thr Ser Pro Thr Arg Ser
 195 200 205

Met Ala Pro Gly Ala Val His Leu Pro Gln Pro Val Ser Thr Arg Ser
 210 215 220

Gln His Thr
 225

<210> 132

<211> 197

<212> PRT

<213> Mus musculus

<400> 132

Met Val Ser Leu Pro Arg Leu Cys Ala Leu Trp Gly Cys Leu Leu Thr
 1 5 10 15

Ala Val His Leu Gly Gln Cys Val Thr Cys Ser Asp Lys Gln Tyr Leu
 20 25 30

His Asp Gly Gln Cys Cys Asp Leu Cys Gln Pro Gly Ser Arg Leu Thr
 35 40 45

Ser His Cys Thr Ala Leu Glu Lys Thr Gln Cys His Pro Cys Asp Ser
 50 55 60

Gly Glu Phe Ser Ala Gln Trp Asn Arg Glu Ile Arg Cys His Gln His
 65 70 75 80

Arg His Cys Glu Pro Asn Gln Gly Leu Arg Val Lys Lys Glu Gly Thr
 85 90 95

Ala Glu Ser Asp Thr Val Cys Thr Cys Lys Glu Gly Gln His Cys Thr
 100 105 110

Ser Lys Asp Cys Glu Ala Cys Ala Gln His Thr Pro Cys Ile Pro Gly
 115 120 125

Phe Gly Val Met Glu Met Ala Thr Glu Thr Thr Asp Thr Val Cys His
 130 135 140

Pro Cys Pro Val Gly Phe Phe Ser Asn Gln Ser Ser Leu Phe Glu Lys
 145 150 155 160

Cys Tyr Pro Trp Thr Ser Cys Glu Asp Lys Asn Leu Glu Val Leu Gln
 165 170 175

Lys Gly Thr Ser Gln Thr Asn Val Ile Cys Gly Leu Lys Ser Arg Met
 180 185 190

Arg Ala Leu Leu Val
 195

<210> 133

<211> 208

<212> PRT

<213> Rattus rattus

<400> 133

Met Asn Lys Trp Leu Cys Cys Ala Leu Leu Val Phe Leu Asp Ile Ile
 1 5 10 15

Glu Trp Thr Thr Gln Glu Thr Phe Pro Pro Lys Tyr Leu His Tyr Asp
 20 25 30

Pro Glu Thr Gly Arg Gln Leu Leu Cys Asp Lys Cys Ala Pro Gly Thr
 35 40 45

Tyr Leu Lys Gln His Cys Thr Val Arg Arg Lys Thr Leu Cys Val Pro
 50 55 60

Cys Pro Asp Tyr Ser Tyr Thr Asp Ser Trp His Thr Ser Asp Glu Cys
 65 70 75 80

Val Tyr Cys Ser Pro Val Cys Lys Glu Leu Gln Thr Val Lys Gln Glu
 85 90 95

Cys Asn Arg Thr His Asn Arg Val Cys Glu Cys Glu Glu Gly Arg Tyr
 100 105 110

Leu Glu Leu Glu Phe Cys Leu Lys His Arg Ser Cys Pro Pro Gly Leu
 115 120 125

Gly Val Leu Gln Ala Gly Thr Pro Glu Arg Asn Thr Val Cys Lys Arg
 130 135 140

Cys Pro Asp Gly Phe Phe Ser Gly Glu Thr Ser Ser Lys Ala Pro Cys
 145 150 155 160

Arg Lys His Thr Asn Cys Ser Ser Leu Gly Leu Leu Leu Ile Gln Lys
 165 170 175

Gly Asn Ala Thr His Asp Asn Val Cys Ser Gly Asn Arg Glu Ala Thr
 180 185 190

Gln Asn Cys Gly Ile Asp Val Thr Leu Cys Glu Glu Ala Phe Phe Arg
 195 200 205

<210> 134

<211> 224

<212> PRT

<213> Homo sapiens

<400> 134

Met Gly Ala Gly Ala Thr Gly Arg Ala Met Asp Gly Pro Arg Leu Leu
 1 5 10 15

Leu Leu Leu Leu Leu Gly Val Ser Leu Gly Gly Ala Lys Glu Ala Cys
 20 25 30

Pro Thr Gly Leu Tyr Thr His Ser Gly Glu Cys Cys Lys Ala Cys Asn
 35 40 45

Leu Gly Glu Gly Val Ala Gln Pro Cys Gly Ala Asn Gln Thr Val Cys
 50 55 60

Glu Pro Cys Leu Asp Ser Val Thr Phe Ser Asp Val Val Ser Ala Thr
 65 70 75 80

Glu Pro Cys Lys Pro Cys Thr Glu Cys Val Gly Leu Gln Ser Met Ser
 85 90 95

Ala Pro Cys Val Glu Ala Asp Asp Ala Val Cys Arg Cys Ala Tyr Gly
 100 105 110

Tyr Tyr Gln Asp Glu Thr Thr Gly Arg Cys Glu Ala Cys Arg Val Cys
 115 120 125

Glu Ala Gly Ser Gly Leu Val Phe Ser Cys Gln Asp Lys Gln Asn Thr
 130 135 140

Val Cys Glu Glu Cys Pro Asp Gly Thr Tyr Ser Asp Glu Ala Asn His
 145 150 155 160

Val Asp Pro Cys Leu Pro Cys Thr Val Cys Glu Asp Thr Glu Arg Gln
 165 170 175

Leu Arg Glu Cys Thr Arg Trp Ala Asp Ala Glu Cys Glu Glu Ile Pro
 180 185 190

Gly Arg Trp Ile Thr Arg Ser Thr Pro Pro Glu Gly Ser Asp Ser Thr
 195 200 205

Ala Pro Ser Thr Gln Glu Pro Glu Ala Pro Pro Glu Gln Asp Leu Ile
 210 215 220

<210> 135

<211> 202

<212> PRT

<213> Rattus rattus

<400> 135

Met Tyr Val Trp Val Gln Gln Pro Thr Ala Phe Leu Leu Leu Gly Leu
 1 5 10 15

Ser Leu Gly Val Thr Val Lys Leu Asn Cys Val Lys Asp Thr Tyr Pro
 20 25 30

Ser Gly His Lys Cys Cys Arg Glu Cys Gln Pro Gly His Gly Met Val
 35 40 45

Ser Arg Cys Asp His Thr Arg Asp Thr Val Cys His Pro Cys Glu Pro
 50 55 60

Gly Phe Tyr Asn Glu Ala Val Asn Tyr Asp Thr Cys Lys Gln Cys Thr
 65 70 75 80

Gln Cys Asn His Arg Ser Gly Ser Glu Leu Lys Gln Asn Cys Thr Pro
 85 90 95

Thr Glu Asp Thr Val Cys Gln Cys Arg Pro Gly Thr Gln Pro Arg Gln
 100 105 110

Asp Ser Ser His Lys Leu Gly Val Asp Cys Val Pro Cys Pro Pro Gly
 115 120 125

His Phe Ser Pro Gly Ser Asn Gln Ala Cys Lys Pro Trp Thr Asn Cys
 130 135 140

Thr Leu Ser Gly Lys Gln Ile Arg His Pro Ala Ser Asn Ser Val Cys
 145 150 155 160

Glu Asp Arg Ser Leu Leu Ala Thr Leu Leu Trp Glu Thr Gln Arg Thr
 165 170 175

Thr Phe Arg Pro Thr Thr Val Pro Ser Thr Thr Val Trp Pro Arg Thr
 180 185 190

Ser Gln Leu Pro Ser Thr Pro Thr Leu Val
 195 200

<210> 136

<211> 380

<212> PRT

<213> Homo sapiens

<400> 136

Glu Thr Phe Pro Pro Lys Tyr Leu His Tyr Asp Glu Glu Thr Ser His
 1 5 10 15

Gln Leu Leu Cys Asp Lys Cys Pro Pro Gly Thr Tyr Leu Lys Gln His
 20 25 30

Cys Thr Ala Lys Trp Lys Thr Val Cys Ala Pro Cys Pro Asp His Tyr
 35 40 45

Tyr Thr Asp Ser Trp His Thr Ser Asp Glu Cys Leu Tyr Cys Ser Pro
 50 55 60

Val Cys Lys Glu Leu Gln Tyr Val Lys Gln Glu Cys Asn Arg Thr His
 65 70 75 80
 Asn Arg Val Cys Glu Cys Lys Glu Gly Arg Tyr Leu Glu Ile Glu Phe
 85 90 95
 Cys Leu Lys His Arg Ser Cys Pro Pro Gly Phe Gly Val Val Gln Ala
 100 105 110
 Gly Thr Pro Glu Arg Asn Thr Val Cys Lys Arg Cys Pro Asp Gly Phe
 115 120 125
 Phe Ser Asn Glu Thr Ser Ser Lys Ala Pro Cys Arg Lys His Thr Asn
 130 135 140
 Cys Ser Val Phe Gly Leu Leu Leu Thr Gln Lys Gly Asn Ala Thr His
 145 150 155 160
 Asp Asn Ile Cys Ser Gly Asn Ser Glu Ser Thr Gln Lys Cys Gly Ile
 165 170 175
 Asp Val Thr Leu Cys Glu Glu Ala Phe Phe Arg Phe Ala Val Pro Thr
 180 185 190
 Lys Phe Thr Pro Asn Trp Leu Ser Val Leu Val Asp Asn Leu Pro Gly
 195 200 205
 Thr Lys Val Asn Ala Glu Ser Val Glu Arg Ile Lys Arg Gln His Ser
 210 215 220
 Ser Gln Glu Gln Thr Phe Gln Leu Leu Lys Leu Trp Lys His Gln Asn
 225 230 235 240
 Lys Asp Gln Asp Ile Val Lys Lys Ile Ile Gln Asp Ile Asp Leu Cys
 245 250 255
 Glu Asn Ser Val Gln Arg His Ile Gly His Ala Asn Leu Thr Phe Glu
 260 265 270
 Gln Leu Arg Ser Leu Met Glu Ser Leu Pro Gly Lys Lys Val Gly Ala
 275 280 285
 Glu Asp Ile Glu Lys Thr Ile Lys Ala Cys Lys Pro Ser Asp Gln Ile
 290 295 300
 Leu Lys Leu Leu Ser Leu Trp Arg Ile Lys Asn Gly Asp Gln Asp Thr
 305 310 315 320
 Leu Lys Gly Leu Met His Ala Leu Lys His Ser Lys Thr Tyr His Phe
 325 330 335

Pro Lys Thr Val Thr Gln Ser Leu Lys Lys Thr Ile Arg Phe Leu His
340 345 350

Ser Phe Thr Met Tyr Lys Leu Tyr Gln Lys Leu Phe Leu Glu Met Ile
355 360 365

Gly Asn Gln Val Gln Ser Val Lys Ile Ser Cys Leu
370 375 380

<210> 137

<211> 54

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic oligonucleotide

<400> 137

tatggatgaa gaaacttctc atcagctgct gtgtgataaa tgtccgccgg gtac

54

<210> 138

<211> 380

<212> PRT

<213> Mus musculus

<400> 138

Glu Thr Leu Pro Pro Lys Tyr Leu His Tyr Asp Pro Glu Thr Gly His
1 5 10 15

Gln Leu Leu Cys Asp Lys Cys Ala Pro Gly Thr Tyr Leu Lys Gln His
20 25 30

Cys Thr Val Arg Arg Lys Thr Leu Cys Val Pro Cys Pro Asp His Ser
35 40 45

Tyr Thr Asp Ser Trp His Thr Ser Asp Glu Cys Val Tyr Cys Ser Pro
50 55 60

Val Cys Lys Glu Leu Gln Ser Val Lys Gln Glu Cys Asn Arg Thr His
65 70 75 80

Asn Arg Val Cys Glu Cys Glu Glu Gly Arg Tyr Leu Glu Ile Glu Phe
85 90 95

A-378CIP2C3.ST25.txt

Cys Leu Lys His Arg Ser Cys Pro Pro Gly Ser Gly Val Val Gln Ala
 100 105 110
 Gly Thr Pro Glu Arg Asn Thr Val Cys Lys Lys Cys Pro Asp Gly Phe
 115 120 125
 Phe Ser Gly Glu Thr Ser Ser Lys Ala Pro Cys Ile Lys His Thr Asn
 130 135 140
 Cys Ser Thr Phe Gly Leu Leu Leu Ile Gln Lys Gly Asn Ala Thr His
 145 150 155 160
 Asp Asn Val Cys Ser Gly Asn Arg Glu Ala Thr Gln Lys Cys Gly Ile
 165 170 175
 Asp Val Thr Leu Cys Glu Glu Ala Phe Phe Arg Phe Ala Val Pro Thr
 180 185 190
 Lys Ile Ile Pro Asn Trp Leu Ser Val Leu Val Asp Ser Leu Pro Gly
 195 200 205
 Thr Lys Val Asn Ala Glu Ser Val Glu Arg Ile Lys Arg Arg His Ser
 210 215 220
 Ser Gln Glu Gln Thr Phe Gln Leu Leu Lys Leu Trp Lys His Gln Asn
 225 230 235 240
 Arg Asp Gln Glu Met Val Lys Lys Ile Ile Gln Asp Ile Asp Leu Cys
 245 250 255
 Glu Ser Ser Val Gln Arg His Leu Gly His Ser Asn Leu Thr Thr Glu
 260 265 270
 Gln Leu Leu Ala Leu Met Glu Ser Leu Pro Gly Lys Lys Ile Ser Pro
 275 280 285
 Glu Glu Ile Glu Arg Thr Arg Lys Thr Cys Lys Ser Ser Glu Gln Leu
 290 295 300
 Leu Lys Leu Leu Ser Leu Trp Arg Ile Lys Asn Gly Asp Gln Asp Thr
 305 310 315 320
 Leu Lys Gly Leu Met Tyr Ala Leu Lys His Leu Lys Thr Ser His Phe
 325 330 335
 Pro Lys Thr Val Thr His Ser Leu Arg Lys Thr Met Arg Phe Leu His
 340 345 350
 Ser Phe Thr Met Tyr Arg Leu Tyr Gln Lys Leu Phe Leu Glu Met Ile
 355 360 365

Gly Asn Gln Val Gln Ser Val Lys Ile Ser Cys Leu
 370 375 380

<210> 139

<211> 380

<212> PRT

<213> Homo sapiens

<400> 139

Glu Thr Phe Pro Lys Tyr Leu His Tyr Asp Glu Glu Thr Ser His
 1 5 10 15

Gln Leu Leu Cys Asp Lys Cys Pro Pro Gly Thr Tyr Leu Lys Gln His
 20 25 30

Cys Thr Ala Lys Trp Lys Thr Val Cys Ala Pro Cys Pro Asp His Tyr
 35 40 45

Tyr Thr Asp Ser Trp His Thr Ser Asp Glu Cys Leu Tyr Cys Ser Pro
 50 55 60

Val Cys Lys Glu Leu Gln Tyr Val Lys Gln Glu Cys Asn Arg Thr His
 65 70 75 80

Asn Arg Val Cys Glu Cys Lys Glu Gly Arg Tyr Leu Glu Ile Glu Phe
 85 90 95

Cys Leu Lys His Arg Ser Cys Pro Pro Gly Phe Gly Val Val Gln Ala
 100 105 110

Gly Thr Pro Glu Arg Asn Thr Val Cys Lys Arg Cys Pro Asp Gly Phe
 115 120 125

Phe Ser Asn Glu Thr Ser Ser Lys Ala Pro Cys Arg Lys His Thr Asn
 130 135 140

Cys Ser Val Phe Gly Leu Leu Leu Thr Gln Lys Gly Asn Ala Thr His
 145 150 155 160

Asp Asn Ile Cys Ser Gly Asn Ser Glu Ser Thr Gln Lys Cys Gly Ile
 165 170 175

Asp Val Thr Leu Cys Glu Glu Ala Phe Phe Arg Phe Ala Val Pro Thr
 180 185 190

Lys Phe Thr Pro Asn Trp Leu Ser Val Leu Val Asp Asn Leu Pro Gly
 195 200 205

Thr Lys Val Asn Ala Glu Ser Val Glu Arg Ile Lys Arg Gln His Ser
 210 215 220

Ser Gln Glu Gln Thr Phe Gln Leu Leu Lys Leu Trp Lys His Gln Asn
 225 230 235 240

Lys Ala Gln Asp Ile Val Lys Lys Ile Ile Gln Asp Ile Asp Leu Cys
 245 250 255

Glu Asn Ser Val Gln Arg His Ile Gly His Ala Asn Leu Thr Phe Glu
 260 265 270

Gln Leu Arg Ser Leu Met Glu Ser Leu Pro Gly Lys Lys Val Gly Ala
 275 280 285

Glu Asp Ile Glu Lys Thr Ile Lys Ala Cys Lys Pro Ser Asp Gln Ile
 290 295 300

Leu Lys Leu Leu Ser Leu Trp Arg Ile Lys Asn Gly Asp Gln Asp Thr
 305 310 315 320

Leu Lys Gly Leu Met His Ala Leu Lys His Ser Lys Thr Tyr His Phe
 325 330 335

Pro Lys Thr Val Thr Gln Ser Leu Lys Lys Thr Ile Arg Phe Leu His
 340 345 350

Ser Phe Thr Met Tyr Lys Leu Tyr Gln Lys Leu Phe Leu Glu Met Ile
 355 360 365

Gly Asn Gln Val Gln Ser Val Lys Ile Ser Cys Leu
 370 375 380

<210> 140

<211> 30

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic oligonucleotide

<400> 140

tggaccaccc agaagtacct tcattatgac

30

<210> 141

<211> 30

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic oligonucleotide

<400> 141

gtcataatga aggtacttct ggggtggtcca

30

<210> 142

<211> 31

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic oligonucleotide

<400> 142

ggaccaccca gcttcattat gacgaagaaa c

31

<210> 143

<211> 31

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic oligonucleotide

<400> 143

gtttcttcgt cataatgaag ctgggtgggc c

31

<210> 144

<211> 29

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic oligonucleotide

<400> 144

gtggaccacc caggacgaag aaacctctc

29

<210> 145

<211> 29

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic oligonucleotide

<400> 145

gagaggtttc ttcgtcctgg gtggtccac

29

<210> 146

<211> 29

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic oligonucleotide

<400> 146

cgtttcctcc aaagttcctt cattatgac

29

<210> 147

<211> 29

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic oligonucleotide

<400> 147

gtcataatga aggaactttg gaggaaacg

29

<210> 148

<211> 32

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic oligonucleotide

<400> 148

ggaaacgttt cctgcaaagt accttcatta tg

32

<210> 149
 <211> 32
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Synthetic oligonucleotide
 <400> 149
 cataatgaag gtactttgca ggaaacgttt cc 32

<210> 150
 <211> 27
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Synthetic oligonucleotide
 <400> 150
 cacgcaaaag tcgggaatag atgtcac 27

<210> 151
 <211> 27
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Synthetic oligonucleotide
 <400> 151
 gtgacatcta ttcccgactt ttgcgtg 27

<210> 152
 <211> 25
 <212> DNA
 <213> Artificial sequence

<220>

<223> Synthetic oligonucleotide

<400> 152

caccctgtcg gaagaggcct tcttc

25

<210> 153

<211> 25

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic oligonucleotide

<400> 153

gaagaaggcc tcttccgaca ggggtg

25

<210> 154

<211> 24

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic oligonucleotide

<400> 154

tgacctctcg gaaagcagcg tgca

24

<210> 155

<211> 24

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic oligonucleotide

<400> 155

tgcacgctgc tttccgagag gtca

24

<210> 156

<211> 24

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic oligonucleotide

<400> 156

cctcgaaatc gagcgagcag ctcc

24

<210> 157

<211> 25

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic oligonucleotide

<400> 157

cgatttcgag gtctttctcg ttctc

25

<210> 158

<211> 33

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic oligonucleotide

<400> 158

ccgtgaaaat aagctcgta taactaggaa tgg

33

<210> 159

<211> 33

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic oligonucleotide

<400> 159

ccattcctag ttataacgag cttattttca cgg

33

<210> 160

<211> 38

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic oligonucleotide

<400> 160

cctctgagct caagcttccg aggaccacaa tgaacaag 38

<210> 161

<211> 44

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic oligonucleotide

<400> 161

cctctctcga gtcaggtgac atctattcca cacttttgcg tggc 44

<210> 162

<211> 38

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic oligonucleotide

<400> 162

cctctgagct caagcttccg aggaccacaa tgaacaag 38

<210> 163

<211> 38

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic oligonucleotide

<400> 163

cctctctcga gtcaaggaac agcaaacctg aagaaggc 38

<210> 164

<211> 38

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic oligonucleotide

<400> 164

cctctgagct caagcttccg aggaccacaa tgaacaag

38

<210> 165

<211> 38

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic oligonucleotide

<400> 165

cctctctcga gtcactctgt ggtgagggtc gaggggcc

38

<210> 166

<211> 38

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic oligonucleotide

<400> 166

cctctgagct caagcttccg aggaccacaa tgaacaag

38

<210> 167

<211> 38

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic oligonucleotide

<400> 167
cctctctcga gtcaggatgt tttcaagtgc ttgagggc

<210> 168

<211> 16

<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic oligonucleotide

<400> 168

Met Lys His His His His His His His Ala Ser Val Asn Ala Leu Glu
1 5 10 15

<210> 169

<211> 70

<212> PRT

<213> Rattus rattus

<400> 169

Ala Leu Leu Val Phe Leu Asp Ile Ile Glu Trp Thr Thr Gln Glu Thr
1 5 10 15

Phe Pro Pro Lys Tyr Leu His Tyr Asp Pro Glu Thr Gly Arg Gln Leu
20 25 30

Leu Cys Asp Lys Cys Ala Pro Gly Thr Tyr Leu Lys Gln His Cys Thr
35 40 45

Val Arg Arg Lys Thr Leu Cys Val Pro Cys Pro Asp Tyr Ser Tyr Thr
50 55 60

Asp Ser Trp His Thr Ser
65 70

<210> 170

<211> 120

<212> PRT

<213> Homo sapiens

<400> 170

His Ala Leu Pro Ala Gln Val Ala Phe Thr Pro Tyr Ala Pro Glu Pro
 1 5 10 15

Gly Ser Thr Cys Arg Leu Arg Glu Tyr Tyr Asp Gln Thr Ala Gln Met
 20 25 30

Cys Cys Ser Lys Cys Ser Pro Gly Gln His Ala Lys Val Phe Cys Thr
 35 40 45

Lys Thr Ser Asp Thr Val Cys Asp Ser Cys Glu Asp Ser Thr Tyr Thr
 50 55 60

Gln Leu Trp Asn Trp Val Pro Glu Cys Leu Ser Cys Gly Ser Arg Cys
 65 70 75 80

Ser Ser Asp Gln Val Glu Thr Gln Ala Cys Thr Arg Glu Gln Asn Arg
 85 90 95

Ile Cys Thr Cys Arg Pro Gly Trp Tyr Cys Ala Leu Ser Lys Gln Glu
 100 105 110

Gly Cys Arg Leu Cys Ala Pro Leu
 115 120

<210> 171

<211> 48

<212> PRT

<213> Rattus rattus

<400> 171

Tyr Leu His Tyr Asp Pro Glu Thr Gly Arg Gln Leu Leu Cys Asp Lys
 1 5 10 15

Cys Ala Pro Gly Thr Tyr Leu Lys Gln His Cys Thr Val Arg Arg Lys
 20 25 30

Thr Leu Cys Val Pro Cys Pro Asp Tyr Ser Tyr Thr Asp Ser Trp His
 35 40 45

<210> 172

<211> 139

<212> PRT

<213> Homo sapiens

<400> 172

A-378CIP2C3.ST25.txt

Pro Pro Lys Tyr Leu His Tyr Asp Glu Glu Thr Ser His Gln Leu Leu
1 5 10 15

Cys Asp Lys Cys Pro Pro Gly Thr Tyr Leu Lys Gln His Cys Thr Ala
20 25 30

Lys Trp Lys Thr Val Cys Ala Pro Cys Pro Asp His Tyr Tyr Thr Asp
35 40 45

Ser Trp His Thr Ser Asp Glu Cys Leu Tyr Cys Ser Pro Val Cys Lys
50 55 60

Glu Leu Gln Tyr Val Lys Gln Glu Cys Asn Arg Thr His Asn Arg Val
65 70 75 80

Cys Glu Cys Lys Glu Gly Arg Tyr Leu Glu Ile Glu Phe Cys Leu Lys
85 90 95

His Arg Ser Cys Pro Pro Gly Phe Gly Val Val Gln Ala Gly Thr Pro
100 105 110

Glu Arg Asn Thr Val Cys Lys Arg Cys Pro Asp Gly Phe Phe Ser Asn
115 120 125

Glu Thr Ser Ser Lys Ala Pro Cys Arg Lys His
130 135

<210> 173

<211> 51

<212> PRT

<213> Homo sapiens

<400> 173

Tyr His Tyr Tyr Asp Gln Asn Gly Arg Met Cys Glu Glu Cys His Met
1 5 10 15

Cys Gln Pro Gly His Phe Leu Val Lys His Cys Lys Gln Pro Lys Arg
20 25 30

Asp Thr Val Cys His Lys Pro Cys Glu Pro Gly Val Thr Tyr Thr Asp
35 40 45

Asp Trp His
50

<210> 174

<211> 401

<212> PRT

<213> Mus musculus

<400> 174

Met Asn Lys Trp Leu Cys Cys Ala Leu Leu Val Leu Leu Asp Ile Ile
 1 5 10 15
 Glu Trp Thr Thr Gln Glu Thr Leu Pro Pro Lys Tyr Leu His Tyr Asp
 20 25 30
 Pro Glu Thr Gly His Gln Leu Leu Cys Asp Lys Cys Ala Pro Gly Thr
 35 40 45
 Tyr Leu Lys Gln His Cys Thr Val Arg Arg Lys Thr Leu Cys Val Pro
 50 55 60
 Cys Pro Asp His Ser Tyr Thr Asp Ser Trp His Thr Ser Asp Glu Cys
 65 70 75 80
 Val Tyr Cys Ser Pro Val Cys Lys Glu Leu Gln Ser Val Lys Gln Glu
 85 90 95
 Cys Asn Arg Thr His Asn Arg Val Cys Glu Cys Glu Glu Gly Arg Tyr
 100 105 110
 Leu Glu Ile Glu Phe Cys Leu Lys His Arg Ser Cys Pro Pro Gly Ser
 115 120 125
 Gly Val Val Gln Ala Gly Thr Pro Glu Arg Asn Thr Val Cys Lys Lys
 130 135 140
 Cys Pro Asp Gly Phe Phe Ser Gly Glu Thr Ser Ser Lys Ala Pro Cys
 145 150 155 160
 Ile Lys His Thr Asn Cys Ser Thr Phe Gly Leu Leu Leu Ile Gln Lys
 165 170 175
 Gly Asn Ala Thr His Asp Asn Val Cys Ser Gly Asn Arg Glu Ala Thr
 180 185 190
 Gln Lys Cys Gly Ile Asp Val Thr Leu Cys Glu Glu Ala Phe Phe Arg
 195 200 205
 Phe Ala Val Pro Thr Lys Ile Ile Pro Asn Trp Leu Ser Val Leu Val
 210 215 220
 Asp Ser Leu Pro Gly Thr Lys Val Asn Ala Glu Ser Val Glu Arg Ile
 225 230 235 240

A-378CIP2C3.ST25.txt

Trp Lys His Gln Asn Arg Asp Gln Glu Met Val Lys Lys Ile Ile Gln
260 265 270

Asp Ile Asp Leu Cys Glu Ser Ser Val Gln Arg His Leu Gly His Ser
275 280 285

Asn Leu Thr Thr Glu Gln Leu Leu Ala Leu Met Glu Ser Leu Pro Gly
290 295 300

Lys Lys Ile Ser Pro Glu Glu Ile Glu Arg Thr Arg Lys Thr Cys Lys
305 310 315 320

Ser Ser Glu Gln Leu Leu Lys Leu Leu Ser Leu Trp Arg Ile Lys Asn
325 330 335

Gly Asp Gln Asp Thr Leu Lys Gly Leu Met Tyr Ala Leu Lys His Leu
340 345 350

Lys Thr Ser His Phe Pro Lys Thr Val Thr His Ser Leu Arg Lys Thr
355 360 365

Met Arg Phe Leu His Ser Phe Thr Met Tyr Arg Leu Tyr Gln Lys Leu
370 375 380

Phe 385 Leu Glu Met Ile 390 Gly Asn Gln Val Gln 395 Ser val Lys Ile Ser Cys 400

Leu

<210> 175

<211> 401

<212> PRT

<213> Rattus rattus

<400> 175

Met Asn Lys Trp Leu Cys Cys Ala Leu Leu Val Phe Leu Asp Ile Ile
1 5 10 15

Glu Trp Thr Thr Gln Glu Thr Phe Pro Pro Lys Tyr Leu His Tyr Asp
20 25 30

Pro Glu Thr Gly Arg Gln Leu Leu Cys Asp Lys Cys Ala Pro Gly Thr
35 40 45

A-378CIP2C3.ST25.txt

Tyr Leu Lys Gln His Cys Thr Val Arg Arg Lys Thr Leu Cys Val Pro
 50 55 60

Cys Pro Asp Tyr Ser Tyr Thr Asp Ser Trp His Thr Ser Asp Glu Cys
 65 70 75 80

Val Tyr Cys Ser Pro Val Cys Lys Glu Leu Gln Thr Val Lys Gln Glu
 85 90 95

Cys Asn Arg Thr His Asn Arg Val Cys Glu Cys Glu Glu Gly Arg Tyr
 100 105 110

Leu Glu Leu Glu Phe Cys Leu Lys His Arg Ser Cys Pro Pro Gly Leu
 115 120 125

Gly Val Leu Gln Ala Gly Thr Pro Glu Arg Asn Thr Val Cys Lys Arg
 130 135 140

Cys Pro Asp Gly Phe Phe Ser Gly Glu Thr Ser Ser Lys Ala Pro Cys
 145 150 155 160

Arg Lys His Thr Asn Cys Ser Ser Leu Gly Leu Leu Leu Ile Gln Lys
 165 170 175

Gly Asn Ala Thr His Asp Asn Val Cys Ser Gly Asn Arg Glu Ala Thr
 180 185 190

Gln Asn Cys Gly Ile Asp Val Thr Leu Cys Glu Glu Ala Phe Phe Arg
 195 200 205

Phe Ala Val Pro Thr Lys Ile Ile Pro Asn Trp Leu Ser Val Leu Val
 210 215 220

Asp Ser Leu Pro Gly Thr Lys Val Asn Ala Glu Ser Val Glu Arg Ile
 225 230 235 240

Lys Arg Arg His Ser Ser Gln Glu Gln Thr Phe Gln Leu Leu Lys Leu
 245 250 255

Trp Lys His Gln Asn Arg Asp Gln Glu Met Val Lys Lys Ile Ile Gln
 260 265 270

Asp Ile Asp Leu Cys Glu Ser Ser Val Gln Arg His Ile Gly His Ala
 275 280 285

Asn Leu Thr Thr Glu Gln Leu Arg Ile Leu Met Glu Ser Leu Pro Gly
 290 295 300

Lys Lys Ile Ser Pro Asp Glu Ile Glu Arg Thr Arg Lys Thr Cys Lys
 305 310 315 320

Pro Ser Glu Gln Leu Leu Lys Leu Leu Ser Leu Trp Arg Ile Lys Asn
 325 330 335

Gly Asp Gln Asp Thr Leu Lys Gly Leu Met Tyr Ala Leu Lys His Leu
 340 345 350

Lys Ala Tyr His Phe Pro Lys Thr Val Thr His Ser Leu Arg Lys Thr
 355 360 365

Ile Arg Phe Leu His Ser Phe Thr Met Tyr Arg Leu Tyr Gln Lys Leu
 370 375 380

Phe Leu Glu Met Ile Gly Asn Gln Val Gln Ser Val Lys Ile Ser Cys
 385 390 395 400

Leu

<210> 176

<211> 401

<212> PRT

<213> Homo sapiens

<400> 176

Met Asn Lys Leu Leu Cys Cys Ala Leu Val Phe Leu Asp Ile Ser Ile
 1 5 10 15

Lys Trp Thr Thr Gln Glu Thr Phe Pro Pro Lys Tyr Leu His Tyr Asp
 20 25 30

Glu Glu Thr Ser His Gln Leu Leu Cys Asp Lys Cys Pro Pro Gly Thr
 35 40 45

Tyr Leu Lys Gln His Cys Thr Ala Lys Trp Lys Thr Val Cys Ala Pro
 50 55 60

Cys Pro Asp His Tyr Tyr Thr Asp Ser Trp His Thr Ser Asp Glu Cys
 65 70 75 80

Leu Tyr Cys Ser Pro Val Cys Lys Glu Leu Gln Tyr Val Lys Gln Glu
 85 90 95

Cys Asn Arg Thr His Asn Arg Val Cys Glu Cys Lys Glu Gly Arg Tyr
 100 105 110

Leu Glu Ile Glu Phe Cys Leu Lys His Arg Ser Cys Pro Pro Gly Leu
 115 120 125

Gly Val Val Gln Ala Gly Thr Pro Glu Arg Asn Thr Val Cys Lys Arg
 130 135 140
 Cys Pro Asp Gly Phe Phe Ser Asn Glu Thr Ser Ser Lys Ala Pro Cys
 145 150 155 160
 Arg Lys His Thr Asn Cys Ser Val Phe Gly Leu Leu Leu Thr Gln Lys
 165 170 175
 Gly Asn Ala Thr His Asp Asn Ile Cys Ser Gly Asn Ser Glu Ser Thr
 180 185 190
 Gln Lys Cys Gly Ile Asp Val Thr Leu Cys Glu Glu Ala Phe Phe Arg
 195 200 205
 Phe Ala Val Pro Thr Lys Phe Thr Pro Asn Trp Leu Ser Val Leu Val
 210 215 220
 Asp Asn Leu Pro Gly Thr Lys Val Asn Ala Glu Ser Val Glu Arg Ile
 225 230 235 240
 Lys Arg Gln His Ser Ser Gln Glu Gln Thr Phe Gln Leu Leu Lys Leu
 245 250 255
 Trp Lys His Gln Asn Lys Asp Gln Asp Ile Val Lys Lys Ile Ile Gln
 260 265 270
 Asp Ile Asp Leu Cys Glu Asn Ser Val Gln Arg His Ile Gly His Ala
 275 280 285
 Asn Leu Thr Phe Glu Gln Leu Arg Ser Leu Met Glu Ser Leu Pro Gly
 290 295 300
 Lys Lys Val Gly Ala Glu Asp Ile Glu Lys Thr Ile Lys Ala Cys Lys
 305 310 315 320
 Pro Ser Asp Gln Ile Leu Lys Leu Leu Ser Leu Trp Arg Ile Lys Asn
 325 330 335
 Gly Asp Gln Asp Thr Leu Lys Gly Leu Met His Ala Leu Lys His Ser
 340 345 350
 Lys Thr Tyr His Phe Pro Lys Thr Val Thr Gln Ser Leu Lys Lys Thr
 355 360 365
 Ile Arg Phe Leu His Ser Phe Thr Met Tyr Lys Leu Tyr Gln Lys Leu
 370 375 380
 Phe Leu Glu Met Ile Gly Asn Gln Val Gln Ser Val Lys Ile Ser Cys
 385 390 395 400

Leu

<210> 177

<211> 139

<212> PRT

<213> Homo sapiens

<400> 177

Cys Pro Gln Gly Lys Tyr Ile His Pro Gln Asn Asn Ser Ile Cys Cys
 1 5 10 15

Thr Lys Cys His Lys Gly Thr Tyr Leu Tyr Asn Asp Cys Pro Gly Pro
 20 25 30

Gly Gln Asp Thr Asp Cys Arg Glu Cys Glu Ser Gly Ser Phe Thr Ala
 35 40 45

Ser Glu Asn His Leu Arg His Cys Leu Ser Cys Ser Lys Cys Arg Lys
 50 55 60

Glu Met Gly Gln Val Glu Ile Ser Ser Cys Thr Val Asp Arg Asp Thr
 65 70 75 80

Val Cys Gly Cys Arg Lys Asn Gln Tyr Arg His Tyr Trp Ser Glu Asn
 85 90 95

Leu Phe Gln Cys Phe Asn Cys Ser Leu Cys Leu Asn Gly Thr Val His
 100 105 110

Leu Ser Cys Gln Glu Lys Gln Asn Thr Val Cys Thr Cys His Ala Gly
 115 120 125

Phe Phe Leu Arg Glu Asn Glu Cys Val Ser Cys
 130 135

<210> 178

<211> 139

<212> PRT

<213> Homo sapiens

<400> 178

Pro Pro Lys Tyr Leu His Tyr Asp Glu Glu Thr Ser His Gln Leu Leu
 1 5 10 15

Cys Asp Lys Cys Pro Pro Gly Thr Tyr Leu Lys Gln His Cys Thr Ala
 20 25 30

Lys Trp Lys Thr Val Cys Ala Pro Cys Pro Asp His Tyr Tyr Thr Asp
 35 40 45

Ser Trp His Thr Ser Asp Glu Cys Leu Tyr Cys Ser Pro Val Cys Lys
 50 55 60

Glu Leu Gln Tyr Val Lys Gln Glu Cys Asn Arg Thr His Asn Arg Val
 65 70 75 80

Cys Glu Cys Lys Glu Gly Arg Tyr Leu Glu Ile Glu Phe Cys Leu Lys
 85 90 95

His Arg Ser Cys Pro Pro Gly Phe Gly Val Val Gln Ala Gly Thr Pro
 100 105 110

Glu Arg Asn Thr Val Cys Lys Arg Cys Pro Asp Gly Phe Phe Ser Asn
 115 120 125

Glu Thr Ser Ser Lys Ala Pro Cys Arg Lys His
 130 135

<210> 179

<211> 379

<212> PRT

<213> Mus musculus

<400> 179

Glu Thr Leu Pro Pro Lys Tyr Leu His Tyr Asp Pro Glu Thr Gly His
 1 5 10 15

Gln Leu Leu Cys Asp Lys Cys Ala Pro Gly Thr Tyr Leu Lys Gln His
 20 25 30

Cys Thr Val Arg Arg Lys Thr Leu Cys Val Pro Cys Pro Asp His Ser
 35 40 45

Tyr Thr Asp Ser Trp His Thr Ser Asp Glu Cys Val Tyr Cys Ser Pro
 50 55 60

Val Cys Lys Glu Leu Gln Ser Val Lys Gln Glu Cys Asn Arg Thr His
 65 70 75 80

Asn Arg Val Cys Glu Cys Glu Glu Gly Arg Tyr Leu Glu Ile Glu Phe
 85 90 95

Cys Leu Lys His Arg Ser Cys Pro Gly Ser Gly Val Val Gln Ala
 100 105 110

Gly Thr Pro Glu Arg Asn Thr Val Lys Lys Cys Pro Asp Gly Phe Phe
 115 120 125

Ser Gly Glu Thr Ser Ser Lys Ala Pro Cys Ile Lys His Thr Asn Cys
 130 135 140

Ser Thr Phe Gly Leu Leu Leu Ile Gln Lys Gly Asn Ala Thr His Asp
 145 150 155 160

Asn Val Cys Ser Gly Asn Arg Glu Ala Thr Gln Lys Cys Gly Ile Asp
 165 170 175

Val Thr Leu Cys Glu Glu Ala Phe Phe Arg Phe Ala Val Pro Thr Lys
 180 185 190

Ile Ile Pro Asn Trp Leu Ser Val Leu Val Asp Ser Leu Pro Gly Thr
 195 200 205

Lys Val Asn Ala Glu Ser Val Glu Arg Ile Lys Arg Arg His Ser Ser
 210 215 220

Gln Glu Gln Thr Phe Gln Leu Leu Lys Leu Trp Lys His Gln Asn Arg
 225 230 235 240

Asp Gln Glu Met Val Lys Lys Ile Ile Gln Asp Ile Asp Leu Cys Glu
 245 250 255

Ser Ser Val Gln Arg His Leu Gly His Ser Asn Leu Thr Thr Glu Gln
 260 265 270

Leu Leu Ala Leu Met Glu Ser Leu Pro Gly Lys Lys Ile Ser Pro Glu
 275 280 285

Glu Ile Glu Arg Thr Arg Lys Thr Cys Lys Ser Ser Glu Gln Leu Leu
 290 295 300

Lys Leu Leu Ser Leu Trp Arg Ile Lys Asn Gly Asp Gln Asp Thr Leu
 305 310 315 320

Lys Gly Leu Met Tyr Ala Leu Lys His Leu Lys Thr Ser His Phe Pro
 325 330 335

Lys Thr Val Thr His Ser Leu Arg Lys Thr Met Arg Phe Leu His Ser
 340 345 350

Phe Thr Met Tyr Arg Leu Tyr Gln Lys Leu Phe Leu Glu Met Ile Gly
 355 360 365

88

Asn Gln Val Gln Ser Val Lys Ile Ser Cys Leu
370 375
